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=> fil reg; d stat que l18; fil capl; d que nos l19; fil uspat; d que nos l20
FILE 'REGISTRY' ENTERED AT 11:50:16 ON 19 SEP 2001
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STRUCTURE FILE UPDATES:   18 SEP 2001  HIGHEST RN 357383-23-4
DICTIONARY FILE UPDATES:  18 SEP 2001  HIGHEST RN 357383-23-4

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Structure search limits have been increased.  See HELP SLIMIT
for details.

L7                  STR
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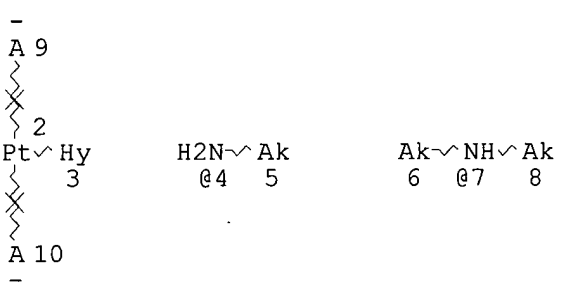


= ring or chain bonds & nodes

A = any non-hydrogen atom

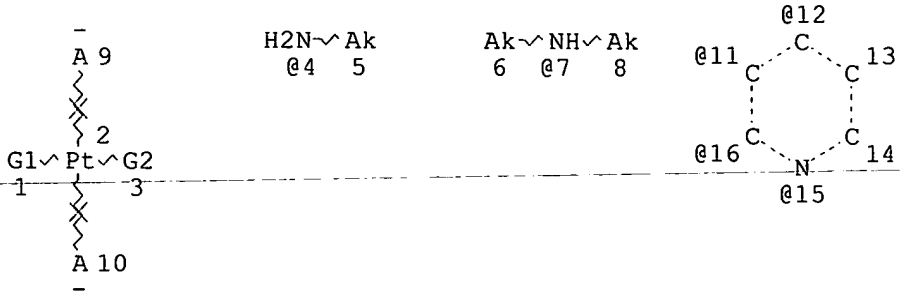
```
VAR G1=NH3/4/7
NODE ATTRIBUTES:
CHARGE   IS *-     AT    9
CHARGE   IS *-     AT   10
NSPEC    IS RC     AT    2
NSPEC    IS RC     AT    9
NSPEC    IS RC     AT   10
CONNECT  IS E1  RC AT    5
CONNECT  IS E1  RC AT    6
CONNECT  IS E1  RC AT    8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  10

STEREO ATTRIBUTES: NONE
L9           327 SEA FILE=REGISTRY SSS FUL L7
L11              STR
```

} nodes 9 & 10 carry any negative charge

full file search done on this structure

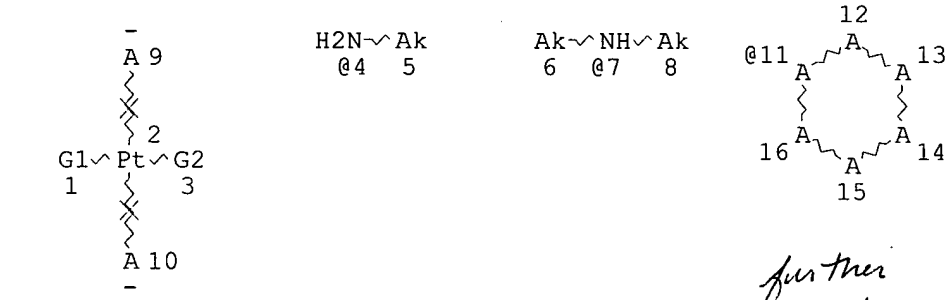


VAR G1=NH3/4/7
VAR G2=15/16/11/12
NODE ATTRIBUTES:
CHARGE IS *- AT 9
CHARGE IS *- AT 10
NSPEC IS RC AT 2
NSPEC IS RC AT 9
NSPEC IS RC AT 10
CONNECT IS E1 RC AT 5
CONNECT IS E1 RC AT 6
CONNECT IS E1 RC AT 8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

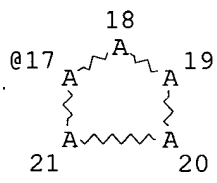
subset search done
"NOT"-ing out this structure
("2 is other than pyridine")

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L13 157 SEA FILE=REGISTRY SUB=L9 SSS FUL L11
L14 170 SEA FILE=REGISTRY ABB=ON L9 NOT L13
L16 STR



further
subset search done
looking for this structure
(2 is 5 or 6-membered Hy)



VAR G1=NH3/4/7
VAR G2=11/17
NODE ATTRIBUTES:

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CHARGE  IS *-     AT   9
CHARGE  IS *-     AT  10
NSPEC   IS RC     AT   2
NSPEC   IS RC     AT   9
NSPEC   IS RC     AT  10
CONNECT IS E1  RC AT   5
CONNECT IS E1  RC AT   6
CONNECT IS E1  RC AT   8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC  11  17
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE
L18         119 SEA FILE=REGISTRY SUB=L14 SSS FUL L16

100.0% PROCESSED    169 ITERATIONS                    119 ANSWERS
SEARCH TIME: 00.00.05
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FILE 'CAPLUS' ENTERED AT 11:50:17 ON 19 SEP 2001
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FILE COVERS 1947 - 19 Sep 2001  VOL 135 ISS 13
FILE LAST UPDATED: 18 Sep 2001  (20010918/ED)
```

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L7 STR

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L9          327 SEA FILE=REGISTRY SSS FUL L7
L11             STR
L13         157 SEA FILE=REGISTRY SUB=L9 SSS FUL L11
L14         170 SEA FILE=REGISTRY ABB=ON  L9 NOT L13
L16             STR
L18         119 SEA FILE=REGISTRY SUB=L14 SSS FUL L16
L19          55 SEA FILE=CAPLUS ABB=ON  L18


FILE 'USPATFULL' ENTERED AT 11:50:18 ON 19 SEP 2001
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 18 Sep 2001 (20010918/PD)
FILE LAST UPDATED: 18 Sep 2001 (20010918/ED)
HIGHEST GRANTED PATENT NUMBER: US6292944
HIGHEST APPLICATION PUBLICATION NUMBER: US2001016957
CA INDEXING IS CURRENT THROUGH 18 Sep 2001 (20010918/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 18 Sep 2001 (20010918/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2001
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2001

>>> Page images are available for patents from 1/1/1998.  Patents   <<<
>>> and applications are typically loaded on the day of publication.<<<
>>> Page images are available for display by the following day.     <<<
>>> Image data for the /FA field are available the following update.<<<

>>> Complete CA file indexing for chemical patents (or equivalents) <<<
>>> is included in file records.  A thesaurus is available for the  <<<
>>> USPTO Manual of Classifications in the /NCL, /INCL, and /RPCL   <<<
>>> fields.  This thesaurus includes catchword terms from the       <<<
>>> USPTO/MOC subject headings and subheadings.  Thesauri are also  <<<
>>> available for the WIPO International Patent Classification      <<<
>>> (IPC) Manuals, editions 1-6, in the /IC1, /IC2, /IC3, /IC4,     <<<
>>> /IC5, and /IC (/IC6) fields, respectively.  The thesauri in     <<<
>>> the /IC5 and /IC fields include the corresponding catchword     <<<
>>> terms from the IPC subject headings and subheadings.            <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.


L7              STR
L9          327 SEA FILE=REGISTRY SSS FUL L7
L11             STR
L13         157 SEA FILE=REGISTRY SUB=L9 SSS FUL L11
L14         170 SEA FILE=REGISTRY ABB=ON  L9 NOT L13
L16             STR
L18         119 SEA FILE=REGISTRY SUB=L14 SSS FUL L16
L20           9 SEA FILE=USPATFULL ABB=ON  L18


=> dup rem 119,120
FILE 'CAPLUS' ENTERED AT 11:50:25 ON 19 SEP 2001
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FILE 'USPATFULL' ENTERED AT 11:50:25 ON 19 SEP 2001
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PROCESSING COMPLETED FOR L19
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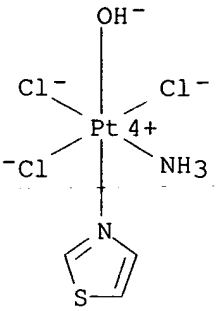
PROCESSING COMPLETED FOR L20
L22 63 DUP REM L19 L20 (1 DUPLICATE REMOVED)
ANSWERS '1-55' FROM FILE CAPLUS
ANSWERS '56-63' FROM FILE USPATFULL

=> d ibib abs hitstr l22 1-63; fil cao; d que nos l21; fil hom

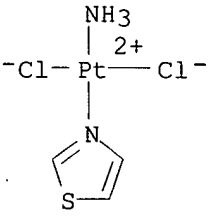
L22 ANSWER 1 OF 63 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
ACCESSION NUMBER: 1997:311254 CAPLUS
DOCUMENT NUMBER: 126:350803
TITLE: Trans-platinum(IV) complexes containing at least one heterocyclic planar ligand as antitumor agents
INVENTOR(S): Farrell, Nicholas
PATENT ASSIGNEE(S): University of Vermont and State Agricultural College, USA
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 120,433, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5624919	A	19970429	US 1994-304837	19940913
WO 9507698	A1	19950323	WO 1994-US10556	19940914
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9478374	A1	19950403	AU 1994-78374	19940914
EP 719144	A1	19960703	EP 1994-929243	19940914
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 09504275	T2	19970428	JP 1994-509398	19940914

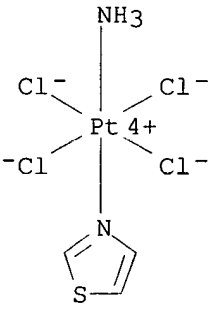
PRIORITY APPLN. INFO.: US 1993-120433 19930914
US 1994-304837 19940913
WO 1994-US10556 19940914
OTHER SOURCE(S): MARPAT 126:350803
AB Novel trans-Pt(IV) complexes which contain heterocycle ligands such as quinoline or isoquinoline, anionic ligands such as halide or sulfate, and which optionally may contain NH3, or a primary or secondary amine are provided. The claimed compds. include, e.g., trans,trans,trans-[PtCl2(OH)2(NH3)L] (L = quinoline, isoquinoline, thiazole), mer,trans-[PtCl3(OH)(NH3)(quinoline)], trans-[PtCl4(NH3)L] (L = quinoline, isoquinoline, thiazole), trans,trans,trans-[PtCl2(O2CMe)2(NH3)(quinoline)], etc. The prepns. of these compds. are provided. These complexes have application as pharmaceuticals, in particular as antitumor agents.
IT **163921-72-0P**
RL: BYP (Byproduct); PREP (Preparation)
(byproduct in prepn. of trans-Pt(IV) chloro ammine thiazole complex)
RN 163921-72-0 CAPLUS
CN Platinum, amminetrichlorohydroxy(thiazole-.kappa.N3)-, (OC-6-21)- (9CI) (CA INDEX NAME)



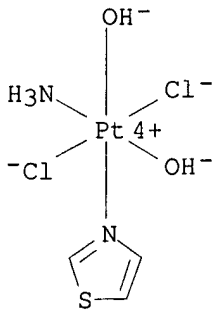
IT **164104-71-6P**, trans-Amminedichloro(thiazole)platinum
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with chlorine or hydrogen peroxide)
RN 164104-71-6 CAPLUS
CN Platinum, amminedichloro(thiazole-.kappa.N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



IT **163921-81-1P**, trans-Amminetetrachloro(thiazole)platinum
163921-82-2P, trans,trans,trans-Amminedichlorodihydroxy(thiazole)platinum
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. as antitumor agent)
RN 163921-81-1 CAPLUS
CN Platinum, amminetetrachloro(thiazole-.kappa.N3)-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 163921-82-2 CAPLUS
CN Platinum, amminedichlorodihydroxy(thiazole-.kappa.N3)-, (OC-6-12)- (9CI) (CA INDEX NAME)



applicant

L42 ANSWER 2 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:742103 CAPLUS
DOCUMENT NUMBER: 133:304927
TITLE: Process for preparing amine platinum complexes
INVENTOR(S): Wong, Ernest S. Y.; Giandomenico, Christen M.
PATENT ASSIGNEE(S): Anormed, Inc., Can.
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000061590	A1	20001019	WO 2000-CA385	20000411

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

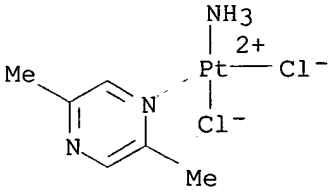
PRIORITY APPLN. INFO.: US 1999-128939 P 19990413
OTHER SOURCE(S): MARPAT 133:304927

AB The present invention relates to the area of Pt amine drugs. In particular, it relates to an improved process for prepg. Pt complexes PtA2LL1 (Ia) or PtA2Y2LL1 (Ib), comprising: (1a) a 1st step, wherein [PtA4]2-, preferably PtCl42-, is reacted with L under appropriate conditions in a 1st solvent to form [PtA3(L)]-; (1b) a 2nd step, wherein [PtA3(L)]- is reacted with L' under appropriate conditions in a 2nd solvent to form cis-[PtA2(L')(L)]; (1c) in the case there Y is halogen or hydroxy a third step, wherein cis-[PtA2(L')(L)] is reacted with H2O2, Y2 or halogen contg. oxidant to form c,t,c-[PtA2Y2(L')(L)]; in the case where Y is carboxylate, carbamate or carbonate ester a 4th step, wherein an intermediate, where Y is hydroxy formed in step (1c), is functionalized with an appropriate acylating agent; and (1d) in the case where A is not a halide or is different from the original halide, addnl. step(s) in which the original halide A of an intermediate formed in step 1a or 1b, 1c or 1d is converted to a different halide or a new leaving group(s) A such as mono-dentate hydroxy, alkoxy, carboxylate or bidentate carboxylate, phosphonocarboxylate, diphosphonate, or sulfate; wherein L = amine or NH3, L' = amine but not NH3 and Y is a halogen, hydroxide, carboxylate, carbamate or carbonate ester. For example, K2[PtCl4] in N-methylpyrrolidinone reacted with 2-picoline (pic) to give K[PtCl3L]

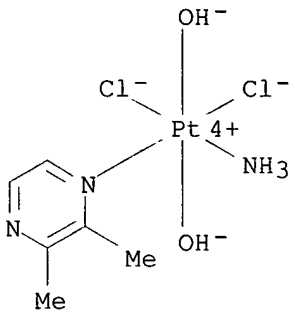
which in aq. soln. in presence of KCl reacted with NH4OAc in presence of NH4OH to give [PtCl2(NH3)(pic)]. [PtCl2(NH3)(pic)] was oxidized by H2O2 to give to give cis,trans,cis-[PtCl2(OH)2(NH3)(pic)] which was converted to [PtCl(OH)3(NH3)(pic)] and subsequently to [PtCl(OAc)3(NH3)(pic)].

IT **301299-27-4P 301299-34-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(improved prepn. of antitumor agent)

RN 301299-27-4 CAPLUS
CN Platinum, amminedichloro(2,5-dimethylpyrazine-.kappa.N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)

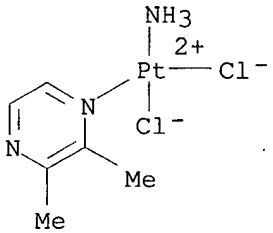


RN 301299-34-3 CAPLUS
CN Platinum, amminedichloro(2,3-dimethylpyrazine-.kappa.N1)dihydroxy-, (OC-6-43)- (9CI) (CA INDEX NAME)



IT **301299-38-7**
RL: RCT (Reactant)
(reactant for improved prepn. of platinum amine complexes as antitumor agents)

RN 301299-38-7 CAPLUS
CN Platinum, amminedichloro(2,3-dimethylpyrazine-.kappa.N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6
REFERENCE(S): (1) Kong; 1978, 4, CAPLUS
(2) Kong; CAN J CHEM 1978, V56(4), P441 CAPLUS

Searched by Barb O'Bryen, STIC 308-4291

(3) Rochon, F; 1988, 24, CAPLUS
(4) Rochon, F; INORG CHIM ACTA 1988, V143(1), P81 CAPLUS
(5) Talman; 1997, 14, CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:691638 CAPLUS
DOCUMENT NUMBER: 134:80093
TITLE: Exocyclic oxygen atoms of platinated nucleobases as binding sites for alkali metal ions
AUTHOR(S): Freisinger, Eva; Schneider, Alexandra; Drumm, Markus; Hegmans, Alexander; Meier, Susanne; Lippert, Bernhard
CORPORATE SOURCE: Fachbereich Chemie, Universitat Dortmund, Dortmund, D-44221, Germany
SOURCE: Dalton (2000), (19), 3281-3287
CODEN: DALTFG
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three complexes of model nucleobases with exocyclic oxygen atoms (1-methyluracilate, mura; 1-methylcytosine, mcyt; 9-methylguanine, Hmgua) which contain PtII bonded to a ring N atom and an alkali metal ion (Cs+, K+, Na+) bonded to a keto oxygen of the bases, trans-Cs[Pt(NH3)(mura)I2].cntdot.4H2O (1), trans-K[Pt(NH3)2(mcyt)2][PF6]3.cntdot.H2O (2), and trans-[Pt(NH3)(Hmgua)2(mcyt)Na(H2O)2][ClO4]3.cntdot.0.5H2O (3), were prepd. and their crystal structures detd. The compds. were studied, among others, with regard to the role of alkali metal ions for the rotation of nucleobases when bound to PtII. While in the case of 1 the alkali metal ion is necessary for charge compensation and for this reason its binding to the platinated mura is not fully unexpected, it is surprising to see that alkali metal ions even bind to cationic complexes of PtII contg. neutral nucleobases (2, 3).
IT **315662-46-5P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and crystal structure)
RN 315662-46-5 CAPLUS
CN Cesium(1+), diaqua-, (SP-4-1)-amminediiodo(1-methyl-2,4(1H,3H)-pyrimidinedionato-.kappa.N3)platinate(1-), dihydrate (9CI) (CA INDEX NAME)

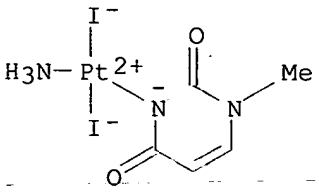
CM 1

CRN 315662-45-4
CMF C5 H8 I2 N3 O2 Pt . Cs H4 O2

same as #12

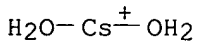
CM 2

CRN 315662-44-3
CMF C5 H8 I2 N3 O2 Pt
CCI CCS
CDES 7:SP-4-1



CM 3

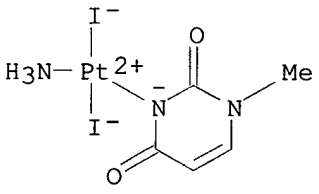
CRN 81009-40-7
CMF Cs H4 O2
CCI CCS



IT **315662-52-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 315662-52-3 CAPLUS
CN Platinum(2+), tetraammine-, (SP-4-1)-, bis[(SP-4-1)-amminediiodo(1-methyl-2,4(1H,3H)-pyrimidinedionato-.kappa.N3)platinate(1-)] (9CI) (CA INDEX NAME)

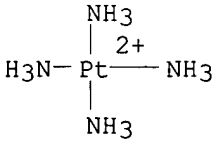
CM 1

CRN 315662-44-3
CMF C5 H8 I2 N3 O2 Pt
CCI CCS
CDES 7:SP-4-1

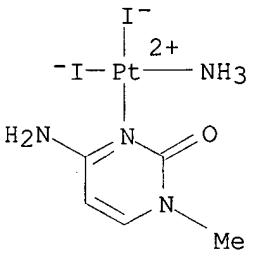


CM 2

CRN 16455-68-8
CMF H12 N4 Pt
CCI CCS
CDES 7:SP-4-1



IT **161269-39-2**
RL: RCT (Reactant)
(reactant for prepn. of sodium platinum ammine methylcytosine methylguanine complex)
RN 161269-39-2 CAPLUS
CN Platinum, (4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)amminediiodo-, (SP-4-1)- (9CI) (CA INDEX NAME)



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ALL CITATIONS AVAILABLE IN THE RE FORMAT

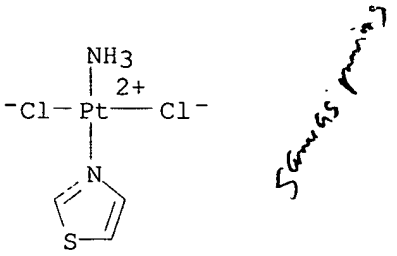
L22 ANSWER 4 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:494736 CAPLUS
DOCUMENT NUMBER: 133:217276
TITLE: Steric control of DNA interstrand cross-link sites of trans platinum complexes: specificity can be dictated by planar nonleaving groups
AUTHOR(S): Brabec, Viktor; Neplechova, Kamila; Kasparkova, Jana; Farrell, Nicholas
CORPORATE SOURCE: Academy of Sciences of the Czech Republic, Brno, 61265, Czech Rep.
SOURCE: JBIC, J. Biol. Inorg. Chem. (2000), 5(3), 364-368
CODEN: JJBCFA; ISSN: 0949-8257
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Recent findings that novel trans-dichloroplatinum(II) complexes exhibit antitumor activity violate the classical structure-activity relationships of platinum(II) complexes. These novel "nonclassical" trans platinum complexes also comprise those contg. planar arom. amines. Initial studies have shown that these compds. form a considerable amt. of DNA interstrand cross-links (up to .apprx.30%) with a rate markedly higher than clin. ineffective transplatin. The present work has shown, using Maxam-Gilbert footprinting, that trans-[PtCl2(NH3)(quinoline)] and trans-

[PtCl2(NH3)(thiazole)], representatives of the group of new antitumor trans-dichloroplatinum complexes contg. planar amines, preferentially form DNA interstrand cross-links between guanine residues at the 5'-GC-3' sites. Thus, DNA interstrand crosslinking by trans-[PtCl2(NH3)(quinoline)] and trans-[PtCl2(NH3)(thiazole)] is formally equiv. to that by antitumor cisplatin, but different from clin. ineffective transplatin which preferentially forms these adducts between complementary guanine and cytosine residues. This result shows for the first time that simple chem. modification of the structure of an inactive compd. alters its DNA binding site into a DNA adduct of an active drug.

IT **164104-71-6**
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(steric control of DNA interstrand cross-link sites of trans platinum complexes)

RN 164104-71-6 CAPLUS

CN Platinum, amminedichloro(thiazole-.kappa.N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



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L22 ANSWER 5 OF 63 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:494729 CAPLUS

DOCUMENT NUMBER: 133:217275

TITLE: Kinetics and mechanism for reduction of anticancer-active tetrachloroam(m)ine platinum(IV) compounds by glutathione

AUTHOR(S): Lemma, Kelemu; Berglund, Johan; Farrell, Nicholas; Elding, Lars I.

CORPORATE SOURCE: Inorganic Chemistry 1, Chemical Center, Lund University, Lund, SE-22100, Swed.

SOURCE: JBIC, J. Biol. Inorg. Chem. (2000), 5(3), 300-306
CODEN: JJBCFA; ISSN: 0949-8257

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

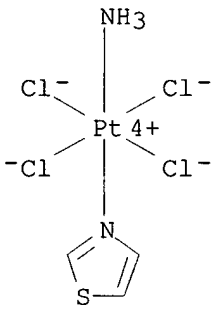
AB Glutathione (GSH) redn. of the anti-cancer-active platinum(IV) compds. trans-[PtCl4(NH3)(thiazole)] (1), trans-[PtCl4(cha)(NH3)] (2), cis-[PtCl4(cha)(NH3)] (3) (cha = cyclohexylamine), and cis-[PtCl4(NH3)2] (4) has been investigated at 25.degree.C in a 1.0 M aq. medium at pH 2.0-5.0 (1) and 4.5-6.8 (2-4) using stopped-flow spectrophotometry. The redox reactions follow the second-order rate law d[Pt(IV)]/dt=k[GSH]tot[Pt(IV)], where k is a pH-dependent rate const. and [GSH]tot the total concn. of glutathione. The redn. takes place via parallel reactions between the platinum(IV) complexes and the various

protolytic species of glutathione. The pH dependence of the redox kinetics is ascribed to displacement of these protolytic equil. The thiolate species GS- is the major reductant under the reaction conditions used. The second-order rate consts. for redn. of compds. 1-4 by GS- are (1.43.+-.0.01) .times. 107, (3.86.+-.0.03) .times. 106, (1.83.+-.0.01) .times. 106, and (1.18.+-.0.01) .times. 106 M-1 s-1, resp. Rate consts. for redn. of 1 by the protonated species GSH are more than five orders of magnitude smaller. The mechanism for the reductive elimination reactions of the Pt(IV) compds. is proposed to involve an attack by glutathione on one of the mutually trans coordinated chloride ligands, leading to two-electron transfer via a chloride-bridged activated complex. The kinetics results together with literature data indicate that platinum(IV) complexes with a trans Cl-Pt-Cl axis are reduced rapidly by glutathione as well as by ascorbate. In agreement with this observation, cytotoxicity profiles for such complexes are very similar to those for the corresponding platinum(II) product complexes. The rapid redn. within 1 s of the platinum(IV) compds. with a trans Cl-Pt-Cl axis to their platinum(II) analogs does not seem to support the strategy of using kinetic inertness as a parameter to increase anticancer activity, at least for this class of compds.

IT **163921-81-1**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(redn. kinetics of anticancer-active tetrachloroam(m)ine platinum(IV) compds. by glutathione)

RN 163921-81-1 CAPLUS

CN Platinum, amminetetrachloro(thiazole-.kappa.N3)-, (OC-6-11)- (9CI) (CA INDEX NAME)



same as previous

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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:411016 CAPLUS
DOCUMENT NUMBER: 131:152998
TITLE: Synthesis, Structure, Biological Activity, and DNA Binding of Platinum(II) Complexes of the Type trans-[PtCl2(NH3)L] (L = Planar Nitrogen Base). Effect of L and ~~Cis/~~Trans Isomerism on Sequence Specificity

Searched by Barb O'Bryen, STIC 308-4291

and Unwinding Properties Observed in Globally Platinated DNA

AUTHOR(S): Bierbach, Ulrich; Qu, Yun; Hambley, Trevor W.; Peroutka, John; Nguyen, Holly L.; Doedee, Marijo; Farrell, Nicholas

CORPORATE SOURCE: Department of Chemistry, Virginia Commonwealth University, Richmond, VA, 23284-2006, USA

SOURCE: Inorg. Chem. (1999), 38(15), 3535-3542
CODEN: INOCAJ; ISSN: 0020-1669

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

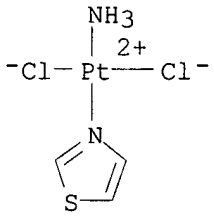
LANGUAGE: English

AB To establish fundamental structural requirements for the antitumor activation of the trans-platinum geometry, complexes [PtCl2(NH3)L] (L = planar N donor) were synthesized. The trans isomers, trans-[PtCl2(NH3)(quinoline)] (3), trans-[PtCl2(NH3)(thiazole)] (5), trans-[PtCl2(NH3)(benzothiazole)] (7), and trans-[PtCl2(NH3)(isoquinoline)] (8) and the cis isomers cis-[PtCl2(NH3)(quinoline)] (4) and cis-[PtCl2(NH3)(thiazole)] (6) were characterized by 1H NMR and anal. data. The crystal structures of 3, 5, 7, and 8 were detd.: 3, monoclinic, space group P21/c, with a 8.414(1), b 12.373(3), c 21.266(3) .ANG., .beta. 96.78(1).degree. and Z = 8; 5, monoclinic, space group P21/n, with a 8.815(4), b 19.917(8), c 14.498(5) .ANG., .beta. 103.30(3).degree. and Z = 12; 7, monoclinic, P21/c, with a 8.150(4), b 23.196(9), c 11.297(7) .ANG., .beta. 90.94(4).degree. and Z = 8; 8, monoclinic, C2/c, with a 19.043(4), b 8.570(2), c 29.127(6) .ANG., .beta. 111.59(2).degree. and Z = 16. In all cases, the Pt coordination plane and L are mutually twisted with angles between planes of 50-68.degree.. Bulky quinoline in 3 produces intramol. steric strain as evidenced by a short, nonbonding Pt.cntdot..cntdot..cntdot.H8quin contact of 2.77 .ANG. and concomitantly distorted Pt-Nquin-C bond angles. The trans complexes 3, 5, 7, and 8 showed a significantly higher cytotoxicity in cisplatin-sensitive L1210 leukemia than trans-[PtCl2(NH3)2] (2), with 3 and 5 being as potent as the corresponding cis isomers 4 and 6. The presence of the planar ligand greatly enhanced the activity of all of the compds. in cells resistant to cisplatin, cis-[PtCl2(NH3)2] (1). Complex geometry and L play an important role in the binding of 1-7 to DNA. For synthetic poly(dG).cntdot.poly(dC) and poly(dG-dC).cntdot.poly(dG-dC) the order of binding affinities (rb, drug-to-nucleotide ratio) was 2 > 1 > 6 > 5 > 4 > 7 > 3 and 5 > 6 > 7 > 3 > 2 > 1 > 4, resp. also, 3 and 7, carrying large planar ligands, were remarkably effective at unwinding neg. supercoiled, closed circular pUC19 DNA (.phi. = 15.degree. and 17.degree., resp.). The consequences of structural effects caused by L on target DNA with respect to possible biol. consequences are discussed.

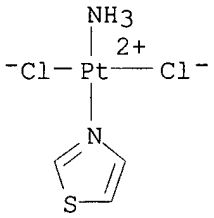
IT **114502-44-2P**, cis-Amminedichloro(thiazole)platinum
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn., antitumor activity and DNA binding)

RN 114502-44-2 CAPLUS

CN Platinum, amminedichloro(thiazole-.kappa.N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



IT **164104-71-6P**, trans-Amminedichloro(thiazole)platinum
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn., crystal structure, antitumor activity and DNA binding)
RN 164104-71-6 CAPLUS
CN Platinum, amminedichloro(thiazole-.kappa.N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 7 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:346517 CAPLUS
DOCUMENT NUMBER: 131:110357
TITLE: A Major, pH-Induced Stereochemical Switch of Pairs of trans-Oriented Ligands in Complexes of trans-a2PtII (a = NH3, CH3NH2)
AUTHOR(S): Mueller, Jens; Glahe, Frank; Freisinger, Eva; Lippert, Bernhard
CORPORATE SOURCE: Fachbereich Chemie, Universitaet Dortmund, Dortmund, D-44221, Germany
SOURCE: Inorg. Chem. (1999), 38(13), 3160-3166
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Trans-[Pt(CH3NH2)2(1-MeC-N4)2]X2 (3a, X = NO3-; 3b, X = ClO4-), contg. the model nucleobase 1-methylcytosine (1-MeC) platinated at N4 and protonated at N3, hence in its rare tautomeric form, was prepd. from the PtIV precursor trans,trans,trans-[Pt(CH3NH2)2(1-MeC-N4)2(OH)2](NO3)2.cntdot.2H2O (2) upon redn. with H2. Crystn. of 3a from 1 M NaOH afforded trans-[Pt(CH3NH2)2(1-MeC--N4)2].cntdot.4H2O (4a) or,

following lyophilization and deprotonation in CH3OH by Me3CONa, gave trans-[Pt(CH3NH2)2(1-MeC--N4)2].cntdot.2CH3OH (4b). While dihedral angles between the coplanar bases and the PtN4 planes are large in the case of 2 (84.8(1).degree.) and 3b (73.9(1).degree.), they become markedly smaller in 4a (55.5(2).degree.) and 4b (26.6(2).degree.) as a consequence of pairwise intramol. H bonding between the NH protons of the CH3NH2 groups and the N3 positions of the cytosine nucleobases. DFT calcns. for the corresponding NH3 complex gave a dihedral angle of 22.3.degree.. The switch of the mutually trans-oriented ligand pairs from approx. perpendicular to roughly coplanar appears to take place during the crystn. process, probably because of competition between intramol. H bonding and intermol. H bonding with the solvent. Crystal data: 2, triclinic, space group P.hivin.1, a 5.937(1), b 8.228(2), c 12.470(2) .ANG., .alpha. 80.36(3), .beta. 80.80(3), .gamma. 80.54(3).degree., Z = 2; 3b, triclinic, P.hivin.1, a 7.392(1), b 9.072(2), c 10.047(2) .ANG., .alpha. 112.40(3), .beta. 106.07(3), .gamma. 94.66(3).degree., Z = 2; 4a, triclinic, P.hivin.1, a 7.104(1), b 7.549(2), c 9.209(2) .ANG., .alpha. 87.74(3), .beta. 88.04(3), .gamma. 85.92(3).degree., Z = 2; 4b, triclinic, P.hivin.1, a 7.045(1), b 7.421(1), c 9.966(2) .ANG., .alpha. 109.25(3), .beta. 99.22(3), .gamma. 95.02(3).degree., Z = 2.

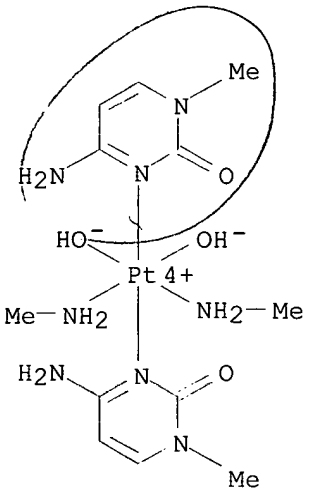
IT **230622-36-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and isomerization in study of pH induced stereochem. switch)

RN 230622-36-3 CAPLUS

CN Platinum(2+), bis(4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)dihydroxybis(methanamine)-, (OC-6-12)-, dinitrate (9CI) (CA INDEX NAME)

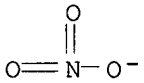
CM 1

CRN 230622-35-2
CMF C12 H26 N8 O4 Pt
CCI CCS
CDES 7:OC-6-12



CM 2

CRN 14797-55-8
CMF N O3



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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 8 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:223265 CAPLUS
DOCUMENT NUMBER: 128:303325
TITLE: Metal-Stabilized rare tautomers of nucleobases. Part 7. Affinity of the iminooxo tautomer anion of 1-methylcytosine in trans-[Pt(NH3)2(1-MeC-N4)2]2+ for heterometals
AUTHOR(S): Muller, Jens; Zangrando, Ennio; Pahlke, Norbert; Freisinger, Eva; Randaccio, Lucio; Lippert, Bernhard
CORPORATE SOURCE: Fachbereich Chemie, Universitat Dortmund, Dortmund, D-44221, Germany
SOURCE: Chem.--Eur. J. (1998), 4(3), 397-405
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

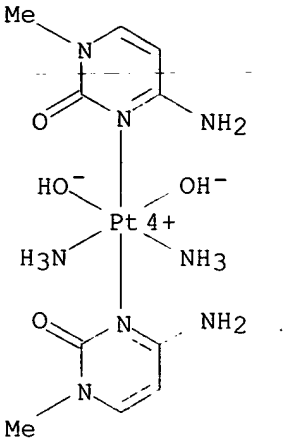
AB Reaction of a PtII complex contg. two 1-methylcytosine (1-MeC) nucleobases bound through the exocyclic amino group N4, trans-[Pt(NH3)2(1-MeC-N4)2](NO3)2 (1), with the heterometal species [(dien)Pd]2+ or Hg2+ gives trans-[(NH3)2Pt[(N4-1-MeC--N3)Pd(dien)]2](ClO4)4.cntdot.2H2O (3) and trans-[(NH3)2Pt(N4-1-MeC--N3)2Hg](NO3)2.cntdot.2H2O (4), resp. The heterometals are bound through the N3 positions of the two cytosine rings. 1 Contains the nucleobase as its rare iminooxo tautomer. In the solid-state structure of 1, the two nucleobases display a syn orientation between Pt and the endocyclic N3 position, whereas in 3 they adopt an anti conformation. In both compds. the cytosine bases are in a head-to-tail orientation. In the bimetallic 4 however, the 1-methylcytosine ligands are head-to-head and syn with the two nucleobases acting as chelating ligands. The Pt-Hg distance in 4 is quite short (2.7498(6) .ANG.), suggesting a weak bonding interaction. In 3 the Pt-Pd distance (5.13 .ANG.) is too long for any interaction. While H-bond formation between the iminooxo tautomer of 1-MeC in 1 with free 1-MeC and likewise between the deprotonated form trans-[Pt(NH3)2(1-MeC--N4)2] (2) and free 9-ethylguanine (9-EtGH) is possible only if the cytosine bases are in an anti orientation, there is no indication for such H-bonding patterns from 1H NMR studies.

IT **101152-06-1**
RL: RCT (Reactant)
(prepn. of)
RN 101152-06-1 CAPLUS
CN Platinum(2+), bis(4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)diamminedihydroxy-, (OC-6-12)-, dinitrate (9CI) (CA INDEX NAME)

CM 1

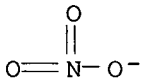
CRN 101152-05-0

CMF C10 H22 N8 O4 Pt
CCI CCS
CDES 7:OC-6-12



CM 2

CRN 14797-55-8
CMF N O3

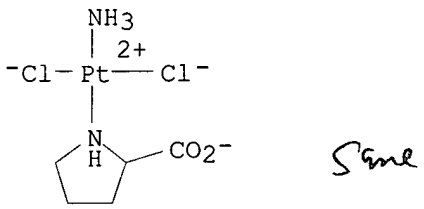


L22 ANSWER 9 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:1819 CAPLUS
DOCUMENT NUMBER: 128:94638
TITLE: Analysis of vicinal optical activity of platinum(II) complexes containing trans-[PtN2O2] chromophore
AUTHOR(S): Klyagina, A. P.; Golovaneva, I. F.; Burkov, V. I.; Minacheva, L. Kh.; Sadikov, G. G.
CORPORATE SOURCE: Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, Russia
SOURCE: Zh. Neorg. Khim. (1997), 42(6), 966-968
CODEN: ZNOKAQ; ISSN: 0044-457X
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Electronic transition responsible for absorption spectra and CD of platinum complexes with proline and hydroxyproline ligands were analyzed. . The CD was interpreted in terms of the one-electron model of the optical activity. The pos. value of the pseudo-scalar function corresponding to the chromophore symmetry correlated with the pos. Cotton effect in a region of the dipole-splitted transition and to the neg. Cotton effect connected with the magneto-splitted transition.

IT **38991-52-5**
RL: PRP (Properties)
(anal. of vicinal optical activity of platinum(II) complexes contg. trans-[PtN2O2] chromophore)

RN 38991-52-5 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-.kappa.N1)-, hydrogen, (SP-4-1)-(9CI) (CA INDEX NAME)



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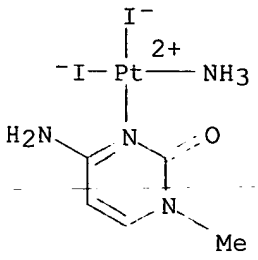
L22 ANSWER 10 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:295135 CAPLUS
DOCUMENT NUMBER: 126:311303
TITLE: Platinum(II) nucleobase complexes containing up to four different ligands: syntheses and x-ray structure determinations of cis-[PtI(1-MeC)2(NH3)]ClO4 and [PtI(1-MeC)(9-EtGH)(NH3)]ClO4.cntdot.1.5H2O
AUTHOR(S): Wienkotter, Thomas; Sabat, Michal; Trotscher-Kaus, Gabriele; Lippert, Bernhard
CORPORATE SOURCE: Fachbereich Chemie, Univ. Dortmund, Dortmund, D-44221, Germany
SOURCE: Inorg. Chim. Acta (1997), 255(2), 361-366
CODEN: ICHAA3; ISSN: 0020-1693
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A square-planar Pt(II) complex contg. four different ligands, including the two model nucleobases 1-methylcytosine (1-MeC) and 9-ethylguanine (9-EtGH), was prepd. and studied by x-ray crystallog. [PtI(1-MeC)(9-EtGH)(NH3)]ClO4.cntdot.1.5H2O (1) crystallizes in the monoclinic system, space group C2/c with a 16.577(3), b 16.638(2), c 17.923(3) .ANG., .beta. 114.37(1).degree., Z = 8. The two nucleobases which are platinated at N3 (1-MeC) and N7 (9-EtGH) are cis to each other and oriented in a way as to form a very weak H bond (3.39 .ANG.) between NH2(4) of 1-MeC and O(6) of 9-EtGH. The guanine ligand is trans to I-. The title compd. represents one of three possible geometrical isomers of compds. having this compn. A closely related complex, cis-[PtI(1-MeC)2(NH3)]ClO4 (3), has likewise been isolated and x-ray structurally characterized: triclinic system, space group P.hivin.1 with a 10.490(4), b 10.886(4), c 9.529(3) .ANG., .alpha. 94.18(3), .beta. 106.28(3), .gamma. 106.33(3).degree., Z = 2. In 3 the two 1-MeC bases are platinated at N3 and oriented head-tail, with intramol. H bonds of 3.22 and 2.95 .ANG. between pairs of NH2(4) and O(2) groups.

IT **161269-39-2**
RL: RCT (Reactant)
(for prepn. of platinum(II) nucleobase complexes contg. up to four different ligands)

RN 161269-39-2 CAPLUS
CN Platinum, (4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)amminediiodo-, (SP-4-1)- (9CI) (CA INDEX NAME)



L23 ANSWER 11 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:294759 CAPLUS
DOCUMENT NUMBER: 126:311299
TITLE: H3O2- bridging in a Pt(IV) nucleobase complex leading to infinite chains: trans,trans,trans-[Pt(NH3)2(1-MeU)2(H3O2)]n(NO3)n.cntdot.(4H2O)n (1-MeU = 1-methyluracilate)
AUTHOR(S): Lianza, Francesca; Albinati, Alberto; Lippert, Bernhard
CORPORATE SOURCE: Ist. Chimico Farmaceutico, Univ. Milano, Milan, I-20131, Italy
SOURCE: Inorg. Chim. Acta (1997), 255(2), 313-318
CODEN: ICHAA3; ISSN: 0020-1693
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

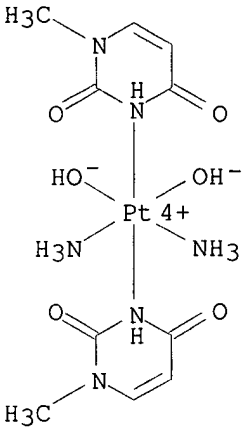
AB The prepn. and x-ray crystal structure detn. of a Pt(IV) nucleobase complex, trans,trans,trans-[Pt(NH3)2(1-MeU)2(H3O2)]n(NO3)n.cntdot.(4H2O)n (1-MeU = 1-methyluracilate-N3) is reported. The compd., obtained upon recrystn. of trans,trans,trans-[Pt(NH3)2(1-MeUH)2(OH)2](NO3)2 (1-MeUH = neutral 1-methyluracil-N3) from water, crystallizes in the triclinic system, space group P.hivin.1 with two independent cations in the unit cell: a 7.3023(8), b 10.1470(20), c 13.4220(20) .ANG., .alpha. 78.800(17), .beta. 83.580(9), .gamma. 78.930(10).degree., Z = 2. Description of its solid state structure as a H3O2- compd. rather than a genuine mixed H2O,OH- complex is based on the presence of very short H bonds of 2.450(6) .ANG. between the oxygens of axial aqua and hydroxo ligands of adjacent Pt(IV) cations, leading to infinite chains.

IT **129700-79-4**
RL: RCT (Reactant)
(for prepn. of platinum methyluracilato ammine hydroxo aqua infinite chain complex)

RN 129700-79-4 CAPLUS
CN Platinum(2+), diamminedihydroxybis(1-methyl-2,4(1H,3H)-pyrimidinedione-.kappa.N3)-, (OC-6-12)-, dinitrate (9CI) (CA INDEX NAME)

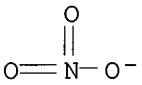
CM 1

CRN 129700-78-3
CMF C10 H20 N6 O6 Pt
CCI CCS
CDES 7:OC-6-12



CM 2

CRN 14797-55-8
CMF N O3



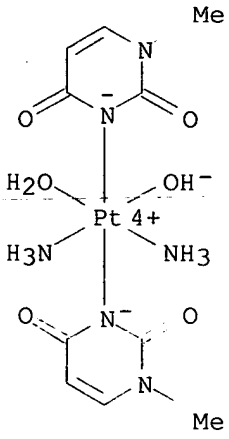
IT **189180-10-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and hydrogen bonding)
RN 189180-10-7 CAPLUS
CN Platinum(1+), diammineaquahydroxybis(1-methyl-2,4(1H,3H)-pyrimidinedionato-.kappa.N3)-, (OC-6-23)-, nitrate, tetrahydrate (9CI) (CA INDEX NAME)

CM 1

CRN 189180-09-4
CMF C10 H19 N6 O6 Pt . N O3

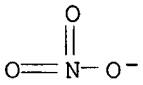
CM 2

CRN 189180-08-3
CMF C10 H19 N6 O6 Pt
CCI CCS
CDES 7:OC-6-23



CM 3

CRN 14797-55-8
CMF N O3



L22 ANSWER 12 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:492707 CAPLUS
DOCUMENT NUMBER: 125:185094
TITLE: Immunocytochemical labeling of aerobic and hypoxic mammalian cells using a platinated derivative of EF5
AUTHOR(S): Matthews, J.; Adomat, H.; Farrell, N.; King, P.; Koch, C.; Lord, E.; Palcic, B.; Poulin, N.; Sangulin, J.; Skov, K.
CORPORATE SOURCE: Department Medical Biophysics, BC Cancer Research Centre, Vancouver, BC, V5Z 1L3, Can.
SOURCE: Br. J. Cancer, Suppl. (1996), 74(27), S200-S203
CODEN: BJCSB5; ISSN: 0306-9443
DOCUMENT TYPE: Journal
LANGUAGE: English

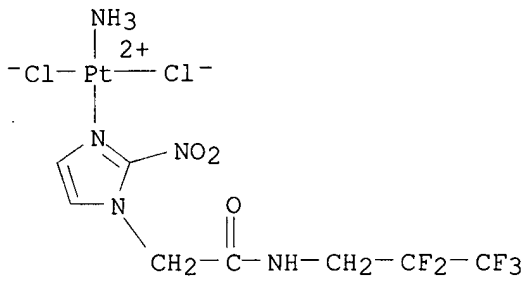
AB The monoclonal antibody ELK3-51 was previously developed to detect adducts of the 2-nitroimidazole EF5. Direct immunofluorescence was used to detect adducts of EF5 or of a platinated deriv. cis-[PtCl2(NH3)EF5] in SCCVII cells treated under aerobic or hypoxic conditions. Fluorescence measurements of these cells using both image and flow cytometric methods were compared, giving similar profiles. Platination significantly decreased immunofluorescence levels (.apprx.4-fold less than EF5) after 3 h in hypoxia, but also increased levels after exposure in air (.apprx.1.5 .times.) such that the hypoxic ratio decreased from .apprx.50 to .apprx.13. Platinated EF5 also showed significantly greater cytotoxicity than its parent in both aerobic and hypoxic cells. These results are consistent with targeting of EF5 to DNA, which was confirmed qual. by confocal microscopy.

IT **180990-37-8**
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BPR (Biological process); THU (Therapeutic use); ANST (Analytical study);

BIOL (Biological study); PROC (Process); USES (Uses)
(immunocytochem. labeling of aerobic and hypoxic mammalian cells using a platinated deriv. of EF5)

RN 180990-37-8 CAPLUS

CN Platinum, amminedichloro[2-nitro-N-(2,2,3,3,3-pentafluoropropyl)-1H-imidazole-1-acetamide-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



L22 ANSWER 13 OF 63 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1996:490063 CAPLUS

DOCUMENT NUMBER: 125:211928

TITLE: New perfluorophthalate complexes of platinum(II) with chemotherapeutic potential

AUTHOR(S): de Oliveira, M. B.; Miller, J.; Banks, R. E.; Kelland, L. R.; McAuliffe, C. A.; Mahmood, N.; Rowland, J. J.

CORPORATE SOURCE: Dep. Chem., Fed. Univ. Paraiba, Joao Pessoa, 58059-000, Brazil

SOURCE: Met.-Based Drugs (1996), 3(3), 117-122
CODEN: MBADEI; ISSN: 0793-0291

DOCUMENT TYPE: Journal

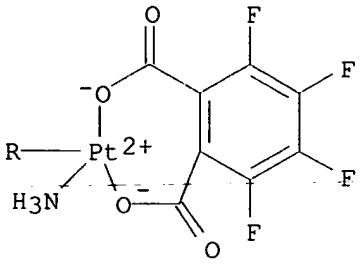
LANGUAGE: English

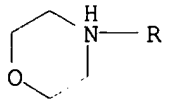
AB Two new platinum(II) complexes have been synthesized and their anti-tumor and anti-HIV activities have been evaluated. The new complexes are: (i) cis-tetrafluorophthalate-ammine-morpholine-platinum(II) or MMF3 and (ii) cis-tetrafluorophthalate-ammine-piperidine-platinum(II) or MPF4. They were characterized by elemental anal., IR spectra and 1H and 13C NMR spectra. They were tested against five human ovarian carcinoma cell lines, viz., CH1, CH1cisR, A2780, A2780cisR and SKOV-3. They were less active than cis-platin and showed cross-resistance with cis-platin in the CH1cisR and A2780cisR acquired resistance lines. They were also tested for possible anti-HIV activity using the HIV-I IIIB virus and C8166 cells, but they were inactive compared with AZT.

IT **181276-56-2P 181276-57-3P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antitumor and anti-HIV activities of new perfluorophthalate complexes with platinum(II) in human cells)

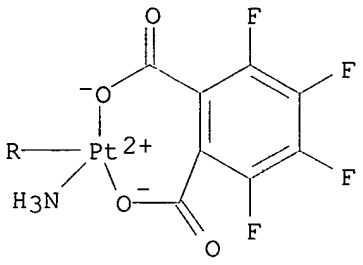
RN 181276-56-2 CAPLUS

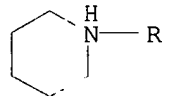
CN Platinum, ammine(morpholine-N4)[3,4,5,6-tetrafluoro-1,2-benzenedicarboxylato(2-)-O1,O2]-, (SP-4-3)- (9CI) (CA INDEX NAME)



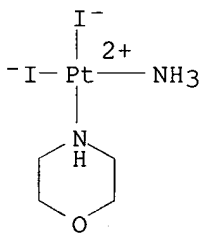


RN 181276-57-3 CAPLUS
CN Platinum, ammine(piperidine)[3,4,5,6-tetrafluoro-1,2-benzenedicarboxylato(2-)-O1,O2]-, (SP-4-3)- (9CI) (CA INDEX NAME)



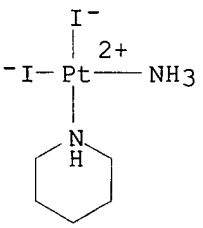


IT **103436-53-9P 116235-97-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(antitumor and anti-HIV activities of new perfluorophthalate complexes with platinum(II) in human cells)
RN 103436-53-9 CAPLUS
CN Platinum, amminediiodo(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116235-97-3 CAPLUS

CN Platinum, amminediiodo(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



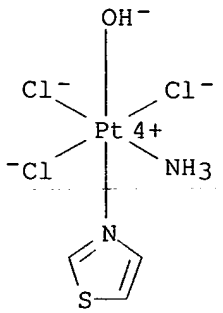
L22 ANSWER 14 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:621706 CAPLUS
DOCUMENT NUMBER: 123:46735
TITLE: Trans platinum(IV) complexes
INVENTOR(S): Farrell, Nicholas
PATENT ASSIGNEE(S): University of Vermont and State Agricultural College, USA
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9507698	A1	19950323	WO 1994-US10556	19940914
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5624919	A	19970429	US 1994-304837	19940913
AU 9478374	A1	19950403	AU 1994-78374	19940914
EP 719144	A1	19960703	EP 1994-929243	19940914
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 09504275	T2	19970428	JP 1994-509398	19940914

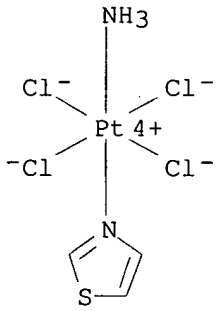
PRIORITY APPLN. INFO.: US 1993-120433 19930914
US 1994-304837 19940913
WO 1994-US10556 19940914
OTHER SOURCE(S): MARPAT 123:46735

AB Novel trans(platinum)(IV) complexes contg. planar heteroarom. ligands are presented as well as methods for their prepn. These complexes are to be used as pharmaceutical agents, e.g., for the treatment of cancer and parasitic diseases.

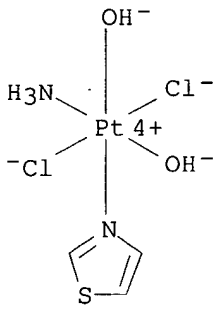
IT **163921-72-0P**
RL: BYP (Byproduct); PREP (Preparation)
(prepn. of trans platinum(IV) nitrogen heterocycle complexes)
RN 163921-72-0 CAPLUS
CN Platinum, amminetrichlorohydroxy(thiazole-.kappa.N3)-, (OC-6-21)- (9CI) (CA INDEX NAME)



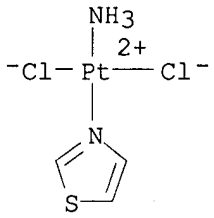
IT **163921-81-1P**, trans-Amminetetrachloro(thiazole)platinum
163921-82-2P, trans,trans,trans-Amminedichlorodihydroxy(thiazole)platinum **164104-71-6P**, trans-Amminedichloro(thiazole)platinum
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of trans platinum(IV) nitrogen heterocycle complexes)
RN 163921-81-1 CAPLUS
CN Platinum, amminetetrachloro(thiazole-.kappa.N3)-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 163921-82-2 CAPLUS
CN Platinum, amminedichlorodihydroxy(thiazole-.kappa.N3)-, (OC-6-12)- (9CI) (CA INDEX NAME)



RN 164104-71-6 CAPLUS
CN Platinum, amminedichloro(thiazole-.kappa.N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)

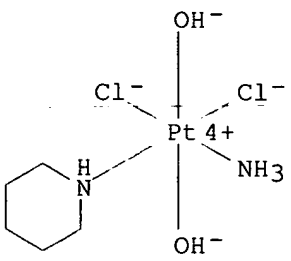


L22 ANSWER 15 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:699368 CAPLUS
DOCUMENT NUMBER: 123:132005
TITLE: Synthesis and in Vitro and in Vivo Antitumor Activity of a Series of Trans Platinum Antitumor Complexes
AUTHOR(S): Kelland, Lloyd R.; Barnard, F. J.; Evans, Iona G.; Murrer, Barry A.; Theobald, Brian R. C.; Wyer, Sandra B.; Goddard, Phyllis M.; Jones, Mervyn; Valenti, Melanie; et al.
CORPORATE SOURCE: CRC Centre for Cancer Therapeutics, Institute of Cancer Research, Sutton/Surrey, SM2 5NG, UK
SOURCE: J. Med. Chem. (1995), 38(16), 3016-24
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English

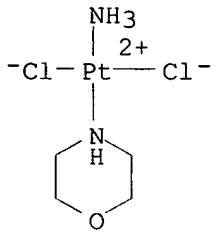
AB The synthesis of a series of platinum complexes of trans coordination geometry [centered around the general formula, trans-ammine(amine)dichlorodihydroxoplatinum(IV) plus corresponding tetrachloroplatinum(IV) or Pt(II) counterparts] is described as part of a drug discovery program to identify more effective platinum-based anticancer drugs, particularly targeted toward the circumvention of resistance to cisplatin. Complexes have been evaluated for antitumor activity using in vitro and in vivo tumor models. In vitro against a panel of cisplatin-sensitive and -resistant human tumor cell lines (predominantly ovarian), many of the trans platinum complexes studied (e.g., cyclohexyl) exhibited comparable potency to cisplatin and also overcame acquired cisplatin resistance, where resistance was due mainly to either reduced drug uptake or enhanced platinum-DNA adduct removal. Morever, 14 trans complexes showed significant in vivo antitumor activity against the s.c. murine ADJ/PC6 plasmacytoma model; all were platinum(IV) complexes, 13/14 possessing axial hydroxo ligands the other possessing axial ethylcarbamato ligands. Where tested, all of their resp. platinum(II) or tetrachloroplatinum(IV) counterparts were inactive. Notably, three dihydroxoPt(IV) complexes (c-hexyl, c-heptyl, and 1-adamantyl) retained some efficacy against a cisplatin-resistant variant of the ADJ/PC6. Compds. {trans-[PtCl2(OH)2NH3(RNH2)]} R = c-C6H11, 22, R = Me3C, 27, R = n-C6H13, 28, R = PhCH2, and {trans-[PtBr2(OH)2NH3(c-C6H11NH2)]} also produced evidence of antitumor activity (>5 days growth delay) against s.c. grown advanced stage human ovarian carcinoma xenografts. These data demonstrate that a series of trans-ammine(amine)dichlorodihydroxoplatinum(IV) complexes are active in vivo against both murine and human s.c. tumor models and represent potential leads to a new generation of platinum-based anticancer drug.

IT **166403-99-2P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antitumor activity of trans platinum antitumor complexes)
RN 166403-99-2 CAPLUS

CN Platinum, amminedichlorodihydroxy(piperidine)-, (OC-6-12)- (9CI) (CA INDEX NAME)



IT **166583-70-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and antitumor activity of trans platinum antitumor complexes)
RN 166583-70-6 CAPLUS
CN Platinum, amminedichloro(morpholine-N4)-, (SP-4-1)- (9CI) (CA INDEX NAME)



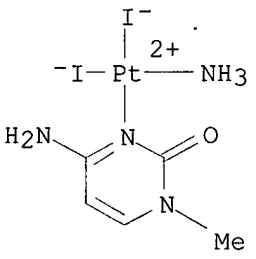
L22 ANSWER 16 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:380922 CAPLUS
DOCUMENT NUMBER: 122:150172
TITLE: Dimerization of trans-[Pt(NH3)(1-MeC-N3)(H2O)2]2+ and Oxidation to a Diplatinum(III) Species in the Presence of Glycine. Relevance for Platinum Cytosine Blue
AUTHOR(S): Wienkoetter, Thomas; Sabat, Michal; Fusch, Gerd; Lippert, Bernhard
CORPORATE SOURCE: Fachbereich Chemie, Universitaet Dortmund, Dortmund, D-44221, Germany
SOURCE: Inorg. Chem. (1995), 34(5), 1022-9
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Trans-Pt(NH3)(1-MeC-N3)I2 (4) with 1-MeC (1-methylcytosine) bound to Pt via N(3), obtained from cis-[Pt(NH3)2(1-MeC-N3)Cl]Cl, gives trans-[Pt(NH3)(1-MeC-N3)(H2O)2]2+ when treated with 2 equiv of AgNO3. This diaqua species rapidly dimerizes in soln. to give [Pt2(NH3)2(1-MeC--N3,N4)2(H2O)2]2+ (5), a compd. contg. bridging 1-methylcytosinato ligands in a head-tail arrangement, as judged from 1H NMR spectroscopy. Also an intensely purple, paramagnetic species 5' forms, which is yet another representative of the class of Pt pyrimidine blues. If dimerization to give 5 is carried out in the presence of the amino acid glycine, spontaneous oxidn. to a yellow diplatinum(III) complex [Pt2(NH3)2(1-MeC--N3,N4)2(gly-N,O)2](NO3)2.cntdot.3H2O (6) takes place. The compd. was isolated and characterized by NMR spectroscopy (1H, 195Pt) and x-ray crystallog.: triclinic system, space group P.hivin.1, a

12.438(4), b 12.820(4), c 10.275(2) .ANG., .alpha. 98.21(3), .beta. 112.84(2), .gamma. 62.24(2).degree., Z = 2. In 6, the two methylcytosinato rings are oriented head-tail, and glycinate anions chelate Pt atoms via NH2 (axial) and COO- (equatorial). The Pt-Pt bond length is 2.527(1) .ANG.. When L-alanine is applied instead of glycine, a complex analogous to 6 is formed which occurs in soln. in two diastereomeric forms, however, as evident from 1H NMR spectroscopy. From 5, an oligomerization process leading to Pt cytosine blue is proposed, according to which O(2) of 1-MeC- is involved in bridging dinuclear entities or dinuclear and mononuclear entities. The proposed oligomerization principle differs markedly from that obsd. in tetranuclear (Pt2.25+)4 complexes contg. cyclic amidate ligands.

IT **161269-39-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and aquation using silver nitrate)

RN 161269-39-2 CAPLUS

CN Platinum, (4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)amminediiodo-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 17 OF 63 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1996:104236 CAPLUS

DOCUMENT NUMBER: 124:248674

TITLE: The synthesis and characterization of dinuclear platinum complexes bridged by the 4,4'-dipyrazolylmethane ligand

AUTHOR(S): Broomhead, John A.; Lynch, Mark J.

CORPORATE SOURCE: Department of Chemistry, Australian National University, Canberra, ACT, 0200, Australia

SOURCE: Inorg. Chim. Acta (1995), 240(1-2), 13-17
CODEN: ICHAA3; ISSN: 0020-1693

DOCUMENT TYPE: Journal

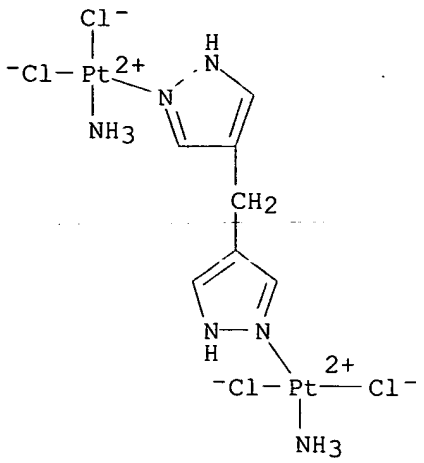
LANGUAGE: English

AB Monobridged-dinuclear Pt(II) complexes, where the bridging ligand is 4,4'-dipyrazolylmethane (dpzm), were prepd. for use as potential anticancer agents. The complexes synthesized include [{cis-PtCl2(NH3)}2(.mu.-dpzm)], [{trans-PtCl2(Me2SO)}2(.mu.-dpzm)] and [{cis-PtCl2(Me2SO)}2(.mu.-dpzm)]. The characterization of these complexes is based on microanal., IR and 1H NMR data.

IT **174585-20-7P**
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and IR spectra and anticancer activity)

RN 174585-20-7 CAPLUS

CN Platinum, diamminetetrachloro[.mu.-[4,4'-methylenebis[1H-pyrazole]-N2:N2']]di-, stereoisomer (9CI) (CA INDEX NAME)

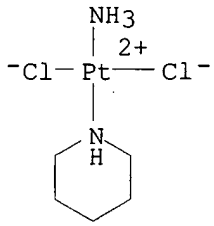


L22 ANSWER 18 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:268087 CAPLUS
DOCUMENT NUMBER: 122:45861
TITLE: Ammine/amine platinum(II) complexes effective in vivo against murine tumors sensitive or resistant to cisplatin and tetraplatin
AUTHOR(S): Siddik, Zahid H.; Thai, Gerald; Yoshida, Motofumi; Zhang, Yan-Ping; Khokhar, Abdul R.
CORPORATE SOURCE: M.D. Anderson Cancer Center, University of Texas, Houston, TX, 77030, USA
SOURCE: J. Cancer Res. Clin. Oncol. (1994), 120(10), 571-7
CODEN: JCROD7; ISSN: 0171-5216
DOCUMENT TYPE: Journal
LANGUAGE: English

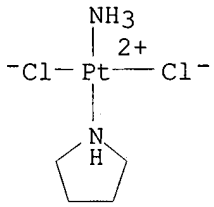
AB Three homologous series, each differing from the other in the coordinated amine ligand class, namely alicyclic, heterocyclic or isoaliph., were highly effective against wild-type murine leukemia L1210/0 cells in vivo (T/C = 171%-426% at optimal doses). Of the 13 complexes comprising the three series, 3 were inactive in the cisplatin-resistant L1210/DDP model, but the other 10 maintained good efficacy (T/C = 131%-167%). Long-term survivors, frequently obsd. with these complexes in the L1210/0 model, were also seen in the L1210/DDP model but to a lesser extent. In the homologous alicyclic series, which contained six analogs, as the alicyclic ring size increased, potency against L1210/0 and L1210/DDP cells also increased up to cyclohexylamine, and then declined. Four ammine/alicyclic amine analogs were evaluated against L1210/DACH cells, which are cross-resistant to tetraplatin, and the clin. predictive M5076 reticulosarcoma. Although the congeners were ineffective or minimally effective in prolonging the survival time of L1210/DACH-bearing mice (T/C = 111%-134%), 20%-40% cure rate was consistently obsd. and suggested that the compds. possessed a low inherent ability to circumvent resistance in these tumor cells also. In the solid M5076 model, activity was greatest (tumor growth delays of about 25 days) for the alicyclic homologs contg. the ammine/cyclobutylamine or ammine/cyclopentylamine carrier ligand combination. In summary, ammine/amine platinum (II) analogs have demonstrated promise at the preclin. level in their ability to circumvent acquired resistance, which is a major drawback of cisplatin use in treating cancer.

IT **116219-26-2 116235-96-2**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ammine/amine platinum(II) complexes effective in vivo against murine

tumors sensitive or resistant to cisplatin and tetraplatin)
RN 116219-26-2 CAPLUS
CN Platinum, amminedichloro(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116235-96-2 CAPLUS
CN Platinum, amminedichloro(pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)

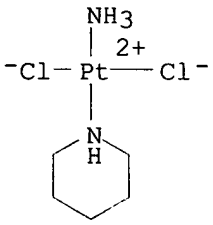


L22 ANSWER 19 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:228472 CAPLUS
DOCUMENT NUMBER: 122:31730
TITLE: Circumvention of platinum resistance: structure-activity relationship for homologous series of ammine/amine platinum(II) complexes in L1210 cell lines
AUTHOR(S): Yoshida, Motofumi; Khokhar, Abdul R.; Siddik, Zahid H.
CORPORATE SOURCE: Dep. Clin. Investigation, Univ. Texas M.D. Anderson Cancer Cent., Houston, TX, 77030, USA
SOURCE: Anti-Cancer Drug Des. (1994), 9(5), 425-34
CODEN: ACDDEA; ISSN: 0266-9536
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ammine/amine dichloroplatinum(II) complexes have been evaluated for structure-activity relation in wild-type L1210/0, 185-fold cisplatin-resistant L1210/DDP and 39-fold tetraplatin-resistant L1210/DACH murine leukemia cells. The mechanism of resistance in these cell lines is multifactorial, with DNA repair playing a dominant role. The amines incorporated in the complexes were selected from the alicyclic, heterocyclic and isoaliph. class, and contained 3, 4, 5 or 6 carbon atoms. The studies demonstrated that ascending each of the homologous series increased cytotoxic potency against sensitive and cisplatin-resistant cell lines and, more importantly, reduced the cross-resistance of cisplatin-resistant cells. Resistance factors (IC50 in resistant cells/IC50 in wild-type cells) were substantially lower than those for cisplatin, but greater than those seen for tetraplatin. In L1210/DACH cells, the potency remained similar across the alicyclic and isoaliph. series, while there was a consistent decrease in activity in the heterocyclic series for each stepwise increase in amine size. Furthermore, the relation between structure and resistance factor in L1210/DACH cells was in direct contrast to that seen in the L1210/DDP

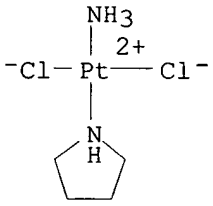
model in that the factors increased on ascending the homologous series stepwise. The lower members of the alicyclic and heterocyclic series and cisplatin had comparable resistance factors in the L1210/DACH line; higher members displayed resistance factors that were comparable to or greater than that of tetraplatin. These results provide evidence for amine class and size as factors that can modulate the potency and capacity of ammine/amine platinum complexes to circumvent cisplatin or tetraplatin resistance.

IT **116219-26-2 116235-96-2**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(circumvention of platinum resistance and structure-activity relationship for homologous series of ammine/amine platinum(II) complexes)

RN 116219-26-2 CAPLUS
CN Platinum, amminedichloro(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116235-96-2 CAPLUS
CN Platinum, amminedichloro(pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



L22 ANSWER 20 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:123362 CAPLUS
DOCUMENT NUMBER: 120:123362
TITLE: Structures of the nitroimidazole platinum group metal complexes: cis-amminedibromo[1-({[(2-hydroxyethyl)amino]carbonyl}methyl)-2-nitroimidazole]platinum(II) and trans-dichlorobis(1-hydroxyethyl-2-methyl-5-nitroimidazole)palladium(II)
AUTHOR(S): Rochon, Fernande D.; Melanson, Robert; Farrell, Nicholas
CORPORATE SOURCE: Dep. Chem., Univ. Quebec, Montreal, PQ, H3C 3P8, Can.
SOURCE: Acta Crystallogr., Sect. C: Cryst. Struct. Commun. (1993), C49(10), 1703-6
CODEN: ACSCEE; ISSN: 0108-2701
DOCUMENT TYPE: Journal
LANGUAGE: English

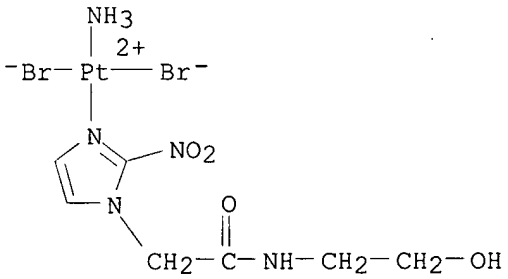
AB Cis-[PtBr2L(NH3)] (L = N-(2-hydroxyethyl)-2-nitroimidazole-1-acetamide (etanidazole)) was prepd. and crystd. in orthorhombic, space group Pnca, Z = 8, R = 0.062. Pt has a square-planar coordination. The Pt-Br bond

trans to the nitroimidazole ligand is slightly shorter [2.375 (3) .ANG.] than the Pt-Br bond trans to NH3 [2.397 (3) .ANG.]. The dihedral angle between the Pt coordination plane and the imidazole ring is 69.1.degree., while the nitro group makes an angle of 32.degree. with the imidazole ring plane. The structure is stabilized by the hydrogen bonding of the NH3 ligands and the hydroxyl groups. The crystal structure was also detd. for trans-[PdCl2L'2] (L' = 2-methyl-5-nitroimidazole-1-ethanol (metronidazole)) monoclinic, space group P21/c, Z = 2, R = 0.027. The bond distances Pd-Cl = 2.297 (1) and Pt-N = 2.007 (2) .ANG.. The dihedral angle between the Pd coordination plane and the imidazole ring is 88.6 (1).degree., while the nitro groups make an angle of 3.9(3).degree. with the imidazole plane. The structure is stabilized by hydrogen bonding between the hydroxyl groups and the chloro ligands.

IT **152837-74-6P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

RN 152837-74-6 CAPLUS

CN Platinum, amminedibromo[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



L22 ANSWER 21 OF 63 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1994:152111 CAPLUS

DOCUMENT NUMBER: 120:152111

TITLE: Formation and x-ray crystal structure analysis of a platinum(IV) complex of 1-methylthymine, obtained through gold(III) treatment of a Pt(II) complex

AUTHOR(S): Renn, Oliver; Lippert, Bernhard; Albinati, Alberto; Lianza, Francesca

CORPORATE SOURCE: Fachbereich Chemie, Universitaet Dortmund, Dortmund, D-44221, Germany

SOURCE: Inorg. Chim. Acta (1993), 211(2), 177-82
CODEN: ICHAA3; ISSN: 0020-1693

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The prepn. and crystal structure of cis,cis-[(NH3)2Pt(1-MeT)2(OH)(H2O)]AuCl4.H2O (I; 1-MeTH = 1-methylthymine) is reported. I contains both heterocyclic bases bound to Pt via the N3 positions, the 2 nucleobase ligands being in a head-to-head orientation. I crystallizes as triclinic, space group P.hivin.1, a 8.435(4), b 11.884(3), c 12.869(7) .ANG., .alpha. 97.28(3), .beta. 91.66(5), .gamma. 110.66(5).degree., Z = 2, R = 0.056, Rw = 0.065.

IT **151591-41-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and IR and XPS spectra of)

RN 151591-41-2 CAPLUS

CN Platinum(1+), diammineaquabis(1,5-dimethyl-2,4(1H,3H)-pyrimidinedionato-N3)hydroxy-, (OC-6-24)-, (SP-4-1)-tetrachloroaurate(1-), monohydrate (9CI)

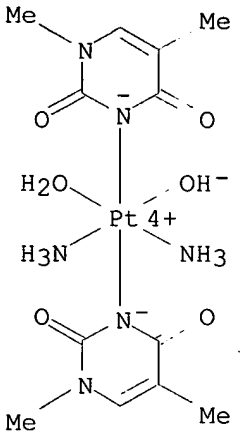
(CA INDEX NAME)

CM 1

CRN 151591-40-1
CMF C12 H23 N6 O6 Pt . Au Cl4

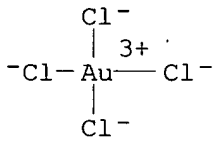
CM 2

CRN 151591-39-8
CMF C12 H23 N6 O6 Pt
CCI CCS
CDES 7:OC-6-24



CM 3

CRN 14337-12-3
CMF Au Cl4
CCI CCS
CDES 7:SP-4-1



L22 ANSWER 22 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:182182 CAPLUS
DOCUMENT NUMBER: 118:182182
TITLE: ~~Trans-platinum compounds with anti~~-tumor activity, their preparation, and compositions containing them
INVENTOR(S): Barnard, Christopher Francis James
PATENT ASSIGNEE(S): Johnson Matthey PLC, UK
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

Searched by Barb O'Bryen, STIC 308-4291

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 503830	A1	19920916	EP 1992-301845	19920304
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE				
CA 2061759	AA	19920910	CA 1992-2061759	19920224
AU 9211419	A1	19920910	AU 1992-11419	19920303
AU 641850	B2	19930930		
NO 9200894	A	19920910	NO 1992-894	19920306
FI 9201021	A	19920910	FI 1992-1021	19920309
HU 60747	A2	19921028	HU 1992-793	19920309
JP 04327596	A2	19921117	JP 1992-50519	19920309
ZA 9201737	A	19921125	ZA 1992-1737	19920309
US 5194645	A	19930316	US 1992-848681	19920309

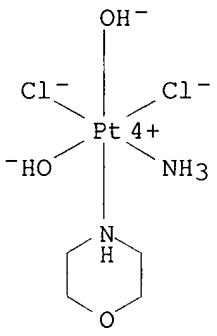
PRIORITY APPLN. INFO.: GB 1991-5037 19910309
OTHER SOURCE(S): MARPAT 118:182182

AB trans-Pt(IV) compds. of general formula [PtX2Y2L1L2)], where X is halogen; Y is halogen, hydroxyl, or carboxylate; and each L is an amine ligand, providing L1 and L2 are not both NH3, are surprisingly active against cancer cells, in contrast to expectations that all trans-Pt compds. are inactive. Specific claimed compds. are trans-[PtCl2(OH)2(NH3)(c-C6H9NH2)], trans-[PtCl2(OH)2(NH3)(c-C6H11NH2)], trans-[PtCl2(OH)2(NH3)((CH3)2CHNH2)], trans-[PtCl2(OH)2(NH3)((CH3)3CNH2)], and trans-[PtCl2(OCOCH3)2(NH3)(c-C6H11NH2)], where c indicates a cyclic compd.

IT **146924-17-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antitumor pharmaceutical)

RN 146924-17-6 CAPLUS

CN Platinum, amminedichlorodihydroxy(morpholine-N4)-, (OC-6-12)- (9CI) (CA INDEX NAME)



L22 ANSWER 23 OF 63 CAPLUS COPYRIGHT 2001 ACS

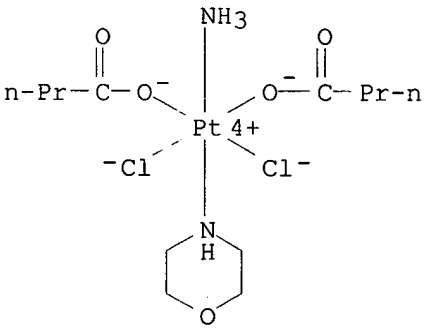
ACCESSION NUMBER: 1992:187485 CAPLUS
DOCUMENT NUMBER: 116:187485
TITLE: Ammine/amine platinum(IV) dicarboxylates: a novel class of platinum complex exhibiting selective cytotoxicity to intrinsically cisplatin-resistant human ovarian carcinoma cell lines
AUTHOR(S): Kelland, Lloyd R.; Murrer, Barry A.; Abel, George; Giandomenico, Christen M.; Mistry, Prakash; Harrap, Kenneth R.
CORPORATE SOURCE: Drug Dev. Sect., Inst. Cancer Res., Belmont/Sutton/Surrey, SM2 5NG, UK
SOURCE: Cancer Res. (1992), 52(4), 822-8

Searched by Barb O'Bryen, STIC 308-4291

CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Using a panel of six human ovarian carcinoma cell lines varying by two orders of magnitude in terms of cisplatin cytotoxicity, the authors investigated the in vitro antitumor activity of a series of novel alkylamine ammine dicarboxylatodichloroplatinum (IV) complexes of the general formula c,t,c-[PtCl2(OCOR1)2NH3(RNH2)];R and R1= aliph., arom. or alicyclic. A clear relationship existed between increasing the no. of carbons in the R1 substituent and increasing cytotoxicity up to R1 = C5H11. In terms of changing the R group, max. cytotoxic effects were conferred by alicyclic substituents. Furthermore, increasing the alicyclic ring size from cyclobutane through to cycloheptane resulted in increasing cytotoxicity. The agents with longer axial chains (e.g., JM300, R = cyclohexyl, R1 = C6H13) were more cytotoxic than cisplatin and, moreover, exhibited a selective cytotoxic effect against the most intrinsically cisplatin-resistant cell lines. The carboxylates JM221 (R = cyclohexyl, R1 = C3H7) and JM244 (R = Pr, R1 = C6H5) also retained activity against a 4-fold cisplatin-acquired resistant variant of the 41M cell line. At least part of the increased cytotoxicity of the dicarboxylate, JM221, over cisplatin appeared to be attributable to an increased intracellular accumulation. This novel class of platinum compd. represents a valuable lead in the development of a "third-generation" agent capable of exhibiting activity against clin. disease currently resistant to cisplatin.

IT **140430-88-2**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor activity of, in cisplatin-resistant human ovarian carcinoma, structure in relation to)
RN 140430-88-2 CAPLUS
CN Platinum, amminebis(butanoato-O)dichloro(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



L22 ANSWER 24 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:669138 CAPLUS
DOCUMENT NUMBER: 115:269138
TITLE: Characterization and properties of monoammine nitroimidazole complexes of platinum [PtCl2(NH3)(NO2Im)]. Crystal and molecular structure of cis-amminedichloro(1-{(((2-hydroxyethyl)amino)carbonyl)methyl}-2-nitroimidazole)platinum(II)
AUTHOR(S): Rochon, Fernande D.; Kong, Pi Chang; Melanson, Robert; Skov, Kirsten A.; Farrell, Nicholas

Searched by Barb O'Bryen, STIC 308-4291

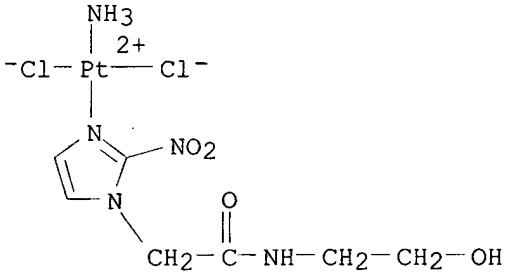
CORPORATE SOURCE: Vermont Reg. Cancer Cent., Univ. Vermont, Burlington, VT, 05405, USA
SOURCE: Inorg. Chem. (1991), 30(24), 4531-5
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The characterization of [PtCl2(NH3)(NO2Im)] (NO2Im = Etanidazole (L), Misonidazole (L1) and Metronidazole (L2)) is reported. Both cis and trans isomers may be isolated for the L1 and L2 complexes. The crystal structure of cis-[PtCl2(NH3)L] has been detd. by x-ray diffraction. The crystals are orthorhombic, space group Pnab with a 14.867(7), b 9.915(5), c 19.015(9) .ANG., Z = 8, R = 0.062 and Rw = 0.052. Platinum has the expected square-planar coordination. The Pt-Cl bond trans to the nitroimidazole ligand is shorter (2.269(3) .ANG.) than normal. The dihedral angle between the platinum plane and the imidazole ring is 111.degree., while the nitro group makes an angle of 31.degree. with the imidazole ring plane. Electrochem. and 195Pt NMR data are also reported. The relevance of the chem. properties to their biol. properties as radiosensitizers and hypoxic cytotoxins is discussed.

IT **136844-76-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and electrochem. redn. and radiosensitizing and hypoxic cytotoxin properties of)

RN 136844-76-3 CAPLUS

CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)

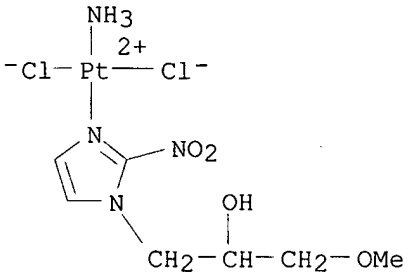


Same as matches

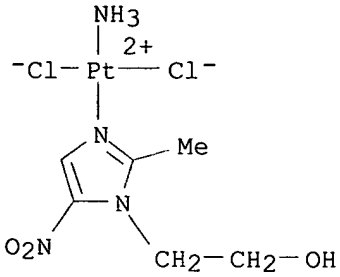
IT **114532-23-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and electrochem. redn. and radiosensitizing and hypoxic cytotoxin properties of)

RN 114532-23-9 CAPLUS

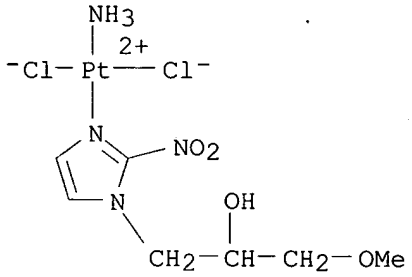
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



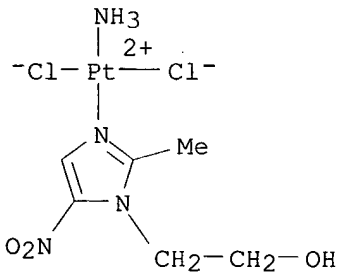
IT **110321-22-7P 112198-62-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and isomerization and electrochem. redn. and radiosensitizing and hypoxic cytotoxin properties of)
RN 110321-22-7 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 112198-62-6 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



IT **121350-06-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. by isomerization and electrochem. redn. and radiosensitizing and hypoxic cytotoxin properties of)
RN 121350-06-9 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 25 OF 63 CAPLUS COPYRIGHT 2001 ACS

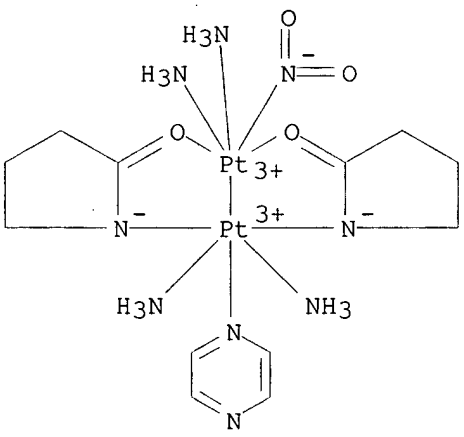
ACCESSION NUMBER: 1991:669081 CAPLUS
DOCUMENT NUMBER: 115:269081
TITLE: A tetranuclear tervalent platinum complex with .alpha.-pyrrolidonate and deprotonated ammine bridging ligands, [(NO3)(NH3)2Pt(III)(C4H6NO)2Pt(III)(NH3)(.mu.-NH2)]2(NO3)4
AUTHOR(S): Matsumoto, Kazuko; Harashima, Kazuo
CORPORATE SOURCE: Dep. Chem., Waseda Univ., Tokyo, 169, Japan
SOURCE: Inorg. Chem. (1991), 30(15), 3032-4
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English

AB From the reaction of [PtII2PtIII2(NH3)8 (.mu.-L)](NO3)6.cntdot.2H2O (HL = .alpha.-pyrrolidone) with excess pyrazine in water were obtained dark green, almost black block crystals of [(NO3)(NH3)2PtIII(.mu.-L)2PtIII(NH3)(.mu.-NH2)]2(NO3)4. The crystal is monoclinic (P2/c) with cell a 10.652(5) b 18.512(7) c 10.430(4) .ANG., .beta. 102.42(3).degree., Z = 2, and V = 2008(1) .ANG.3. The complex consists of two .alpha.-pyrrolidonate-bridged Pt(III) dimeric units. The two dimers are bridged by two NH2- ligands to form tetranuclear [(NO3)(NH3)2PtIII(.mu.-L)2PtIII(NH3)(.mu.-NH2)]24+. The Pt-Pt distance in the dimeric unit is 2.608(1) .ANG., whereas that of the interdimer sepn. is 3.160(2) .ANG..

IT **135228-16-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 135228-16-9 CAPLUS
CN Platinum(3+), tetraammine(nitrito-N)(pyrazine-N1)bis[.mu.-(2-pyrrolidinonato-N1:O2)]di-, (Pt-Pt), stereoisomer, trinitrate (9CI) (CA INDEX NAME)

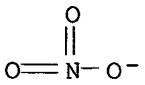
CM 1

CRN 135228-15-8
CMF C12 H28 N9 O4 Pt2
CCI CCS
CDES *



CM 2

CRN 14797-55-8
CMF N O3

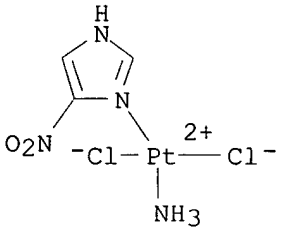


L22 ANSWER 26 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:568093 CAPLUS
DOCUMENT NUMBER: 113:168093
TITLE: Radiosensitization by metal complexes of 4(5)-nitroimidazole
AUTHOR(S): Skov, K. A.; Farrell, N. P.
CORPORATE SOURCE: Med. Biophys. Unit, British Columbia Cancer Res. Cent., Vancouver, BC, V5Z 1L3, Can.
SOURCE: Int. J. Radiat. Biol. (1990), 57(5), 947-58
CODEN: IJRBE7
DOCUMENT TYPE: Journal
LANGUAGE: English

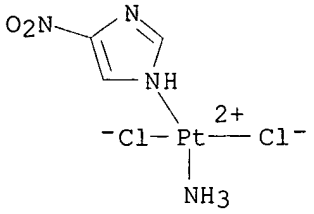
AB Four closely-related cis-platinum (Pt) complexes of 4(5)-nitroimidazole were examd. with respect to properties of radiobiol. interest, to test the hypothesis that targeting a nitroimidazole (NO2Im) to DNA could enhance its radiosensitizing ability: PtCl2(5-NO2Im)2 (I); PtCl2(4-NO2Im)2 (II); PtCl2(NH3)(5-NO2Im) (III); PtCl2(NH3)(4-NO2Im) (IV). The redn. potential was affected to the same extent on metal binding in all of the complexes (.DELTA.E1/2 = +200 mV, cf. ligand measured polog.). Higher sensitization by 5-NO2 complexes I, III (cf. II, IV) was found. Only the mono complexes III and IV bind to DNA (in an assay using inhibition of restriction endonuclease activity); these radiosensitize as well as, or better than, free ligand in hypoxic CHO cells, and better than the bis complexes (I and II). The toxicity of the mono complexes is higher than ligand, and parallels the binding (III, IV, mono bis analogs). The complexes are compared with 4-nitroimidazole complexes of Ru, with respect to toxicity, binding, and radiosensitization.

IT **110302-83-5 129784-94-7**
RL: BIOL (Biological study)
(radiosensitization by, of mammalian cells, DNA binding in relation to)

RN 110302-83-5 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 129784-94-7 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



see work 30

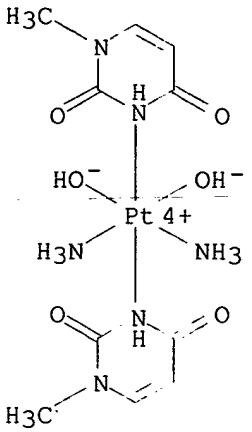
E82 ANSWER 27 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:603810 CAPLUS
DOCUMENT NUMBER: 113:203810
TITLE: Coordination chemistry of trans-(H3N)2Pt(II) with uracil nucleobases. A comparison with cis-(H3N)2Pt(II)
AUTHOR(S): Dieter, Iris; Lippert, Bernhard; Schoellhorn, Helmut; Thewalt, Ulf
CORPORATE SOURCE: Fachbereich Chem., Univ. Dortmund, Dortmund, D-4600, Fed. Rep. Ger.
SOURCE: Z. Naturforsch., B: Chem. Sci. (1990), 45(6), 731-40
CODEN: ZNBSEN; ISSN: 0932-0776
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Protonated and heteronuclear adducts and trans-L2PtX2 (L = NH3, NH2Me, HX = 1-methyluracil (HQ), or uridine) were prepd. and studied by spectroscopic methods and in 2 cases by x-ray crystallog. trans-(NH3)2PtQ2Ag2(NO3)2H2O.H2O (I) crystd. orthorhombic, space group Pna21, a 13.206(6), b 7.238(9), c 22.051(10) .ANG., Z = 4, R = 0.058, Rw = 0.063. I forms a polymeric structure with PtAg2 entities linked via O(4) sites of th 1-methyluracilato ligands. Pt is coordinated through N(3), the Ag centers have a mixed O(2), O(4) coordination. trans,trans,trans-[(NH3)2Pt(OH)2(HQ)2](NO3)2 (II) contains 2 N(3)-bound neutral 1-methyluracil ligands, hence rare tautomers of this model nucleobase. II crystallizes monoclinic, space group P21/n, a 7.098(1), b 10.395(1), c 13.295(2) .ANG., .beta. 91.88(2).degree., Z = 2, R = 0.059, Rw = 0.053. While the chem. leading to Pt(IV) oxidn. products from trans-L2PtX2 is similar to that of the cis-isomer, protonation as well as heteronuclear complex formation of trans-L2PtX2 is more difficult to accomplish than with the cis-isomer. This difference appears to be primarily of steric origin.

IT **129700-79-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and deprotonation and reaction of, with chloride)
RN 129700-79-4 CAPLUS
CN Platinum(2+), diamminedihydroxybis(1-methyl-2,4(1H,3H)-pyrimidinedione-.kappa.N3)-, (OC-6-12)-, dinitrate (9CI) (CA INDEX NAME)

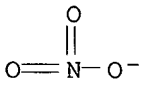
CM 1

CRN 129700-78-3
CMF C10 H20 N6 O6 Pt
CCI CCS
CDES 7:OC-6-12



CM 2

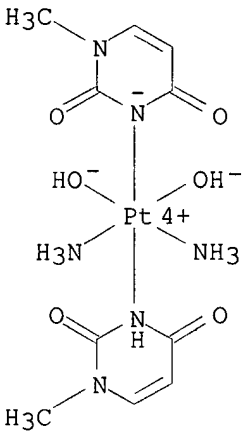
CRN 14797-55-8
CMF N O3



IT **129700-81-8P 129700-83-0P 129700-84-1P**
130039-07-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 129700-81-8 CAPLUS
CN Platinum(1+), diamminedihydroxy(1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)(1-methyl-2,4(1H,3H)-pyrimidinedione-N3)-, (OC-6-13)-, nitrate (9CI) (CA INDEX NAME)

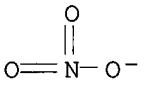
CM 1

CRN 129700-80-7
CMF C10 H19 N6 O6 Pt
CCI CCS
CDES 7:OC-6-13

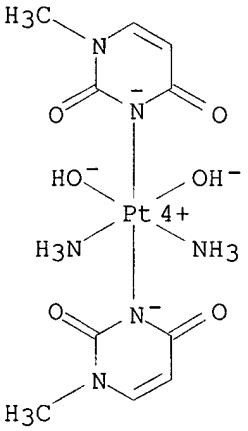


CM 2

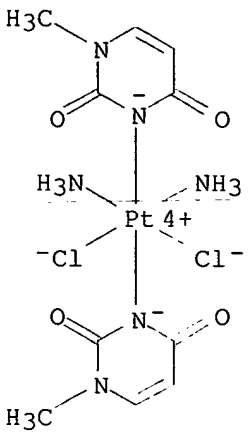
CRN 14797-55-8
CMF N O3



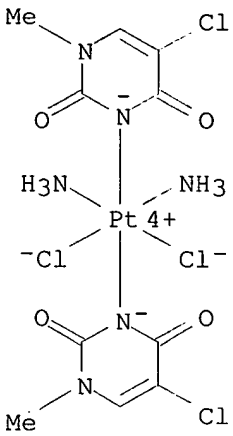
RN 129700-83-0 CAPLUS
CN Platinum, diamminedihydroxybis(1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)-, (OC-6-12)- (9CI) (CA INDEX NAME)



RN 129700-84-1 CAPLUS
CN Platinum, diamminedichlorobis(1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)-, (OC-6-12)- (9CI) (CA INDEX NAME)



RN 130039-07-5 CAPLUS
CN Platinum, diamminedichlorobis(5-chloro-1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)-, (OC-6-12)- (9CI) (CA INDEX NAME)

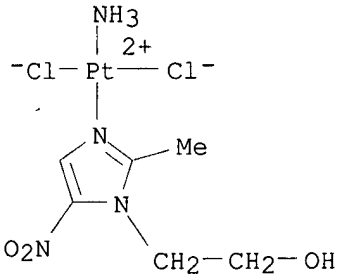


L22 ANSWER 28 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:210664 CAPLUS
DOCUMENT NUMBER: 112:210664
TITLE: Toxicity of [PtCl2(NH3)L] in hypoxia; L = misonidazole or metronidazole
AUTHOR(S): Skov, K. A.; Adomat, H.; Chaplin, D. J.; Farrell, N. P.
CORPORATE SOURCE: Med. Biophys. Unit, BC Cancer Res. Cent., Vancouver, BC, V5Z 1L3, Can.
SOURCE: Anti-Cancer Drug Des. (1990), 5(1), 121-8
CODEN: ACDDEA; ISSN: 0266-9536
DOCUMENT TYPE: Journal
LANGUAGE: English
AB There is increasing interest in compds. which show selective toxicity to the resistant hypoxic portions of tumors. Cisplatin does not generally show preferential toxicity in hypoxic cells, whereas nitroimidazoles do. It is proposed that attachment of a nitroimidazole could add a degree of hypoxic selectivity to Pt agents. Pt complexes contg. one nitroimidazole ligand bind to DNA and show higher toxicity in hypoxic than aerobic CHO cells. cis And trans isomers of complexes with misonidazole (a

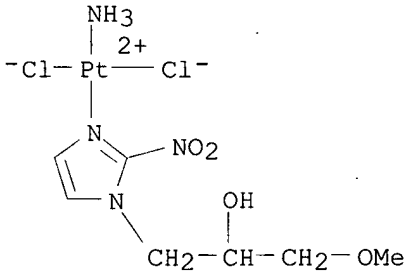
2-nitroimidazole) and metronidazole (a 5-nitroimidazole) are compared with respect to binding to DNA (approx. the same), redn. potential (trans miso > cis miso > cis metro > trans metro), and toxicity (trans > cis meso, cis > trans metro, with trans miso .apprx. cis metro in hypoxia, despite significantly different redn. potentials). The effect of platination on nitroimidazole toxicity is not entirely explained by DNA binding and increased redn. potential. These compds. do not exhibit cross resistance with cisplatin in L1210 resistant cells. This factor, their selectivity for hypoxia, and preliminary results in vivo indicating potentiation of antitumor activity by the vasoactive compd., hydralazine, which increases tumor hypoxia, suggest further development of these compds. for use in tumors with resistant hypoxic portions.

IT **110321-22-7 112198-62-6 114532-23-9 121350-06-9**
RL: PRP (Properties)
(cytotoxicity of, in hypoxia, structure in relation to)

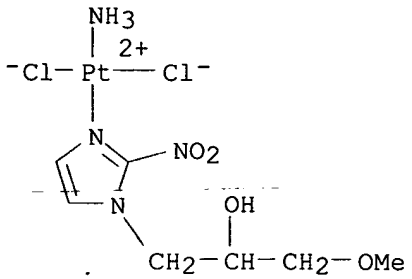
RN 110321-22-7 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



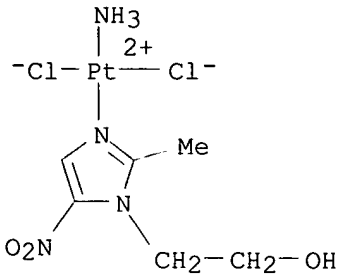
RN 112198-62-6 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 114532-23-9 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 121350-06-9 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 29 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:584699 CAPLUS
DOCUMENT NUMBER: 113:184699
TITLE: Pt (IV) complexes as antitumor agents
INVENTOR(S): Abrams, Michael J.; Gaindomenico, Christen M.; Murrer, Barry A.; Vollano, Jean F.
PATENT ASSIGNEE(S): Johnson Matthey, Inc., USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 328274	A1	19890816	EP 1989-300787	19890127
EP 328274	B1	19941019		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ES 2063119	T3	19950101	ES 1989-300787	19890127
IL 89119	A1	19940412	IL 1989-89119	19890130
AU 8928971	A1	19890803	AU 1989-28971	19890201
AU 618310	B2	19911219		
CA 1340286	A1	19981222	CA 1989-589796	19890201
DK 8900491	A	19890803	DK 1989-491	19890202
FI 8900512	A	19890803	FI 1989-512	19890202
FI 91260	B	19940228		
FI 91260	C	19940610		
NO 8900426	A	19890803	NO 1989-426	19890202
NO 177569	B	19950703		

NO 177569	C	19951011		
JP 01294684	A2	19891128	JP 1989-24751	19890202
HU 49890	A2	19891128	HU 1989-522	19890202
HU 205767	B	19920629		
ZA 8900831	A	19891227	ZA 1989-831	19890202
US 5072011	A	19911210	US 1990-602931	19901025
US 5244919	A	19930914	US 1991-723971	19910701

PRIORITY APPLN. INFO.: US 1988-151674 19880202
US 1989-296776 19890113
US 1990-602931 19901025

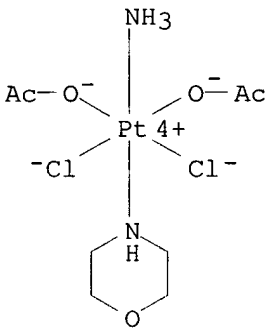
OTHER SOURCE(S): MARPAT 113:184699

AB Pt(IV) complexes, AA1 Pt(OCOR1)2X2 where A, A1 = NH3 or NH2, R, R1 = H, alkyl, alkenyl, aryl, aralykyl, alkylamino, or alkoxy or their derivs., and X = halogen or alkylmono- or -dicarboxylate as antitumor agents. Many of these complexes are sol. in both water and org. solvents, and this dual soly. might contribute to the high antitumor activity. Thus, cis-trans-cis-PtCl2(O2CH)2NH3(cyclohexylamine) was prepd. by formylation of cis-trans-cis-PtCl2(OH)2NH3(cyclohexyl-NH2) in HCOOH during heating at 50.degree.. The antitumor activity of some of these compds. was demonstrated and their LD50 and ED90 values (i.p. and oral) are tabulated.

IT **129598-45-4P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as antitumor agent)

RN 129598-45-4 CAPLUS

CN Platinum, bis(acetato-O)amminedichloro(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



L22 ANSWER 30 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:453447 CAPLUS
DOCUMENT NUMBER: 111:53447
TITLE: Platinum(II) complexes with one radiosensitizing ligand useful in tumor therapy
INVENTOR(S): Skov, Kirsten A.; Farrell, Nicholas P.; Chaplin, David J.
PATENT ASSIGNEE(S): British Columbia Cancer Foundation, Can.
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

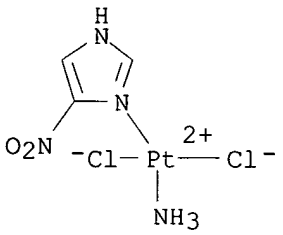
EP 287317	A2	19881019	EP 1988-303258	19880412
EP 287317	A3	19890208		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4921963	A	19900501	US 1987-37498	19870413
JP 01052788	A2	19890228	JP 1988-92608	19880413
CA 1299179	A1	19920421	CA 1988-564082	19880413
US 5026694	A	19910625	US 1989-374356	19890630

PRIORITY APPLN. INFO.: US 1987-37498 19870413
OTHER SOURCE(S): MARPAT 111:53447

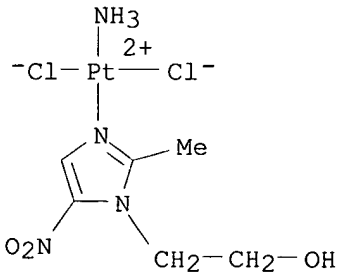
AB Square planar Pt(II) complexes are described of the formula [PtX2(NR2H)L] (I) or [PtX(NR2H)2L]+Y- (II) [X, Y- = a monovalent biol. acceptable anion (X2 in I may also be a divalent biol. acceptable anion); R = H or C1-8 alkyl; R2 = a morpholino or piperidino residue; L = a radiosensitizing mononitro-substituted arom. ligand with .gtoreq.1 heterocyclic N and/or substituent amine]. These complexes bind to DNA and sensitize hypoxic tumors to radiation; they are useful chemotherapeutic agents. cis-I (R = H; X = Cl; L = misonidazole) (cis-III) was prepd. by reaction of 1 equiv of misonidazole with K[PtCl3(NH3)] and treatment of the residue with Et2O. Treatment of cis-III with EtOH yielded trans-III. Chinese hamster ovary cells were incubated with III (100 .mu.mol/dm3) for 1 h at 37.degree. to allow binding to DNA prior to radiation. By use of a known method, radiosensitization of the cells was obsd.

IT **110302-83-5 110321-22-7 112198-62-6**
114532-23-9 121281-51-4 121350-02-5
121350-03-6 121350-04-7 121350-05-8
121350-06-9 121350-07-0 121668-91-5
121668-92-6 121703-32-0 121703-33-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as radiosensitizer, for neoplasm treatment)

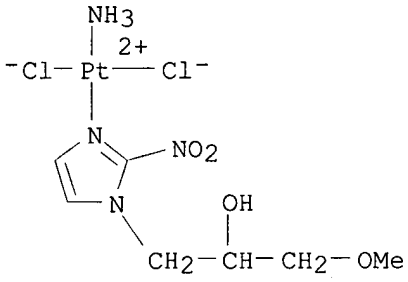
RN 110302-83-5 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



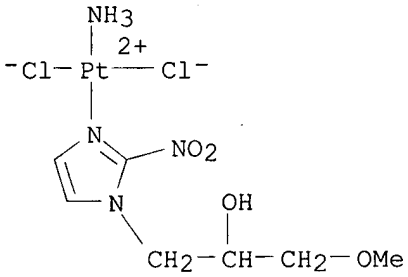
RN 110321-22-7 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



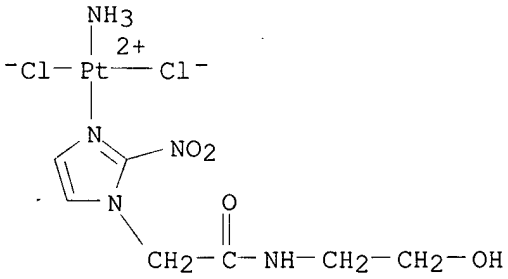
RN 112198-62-6 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



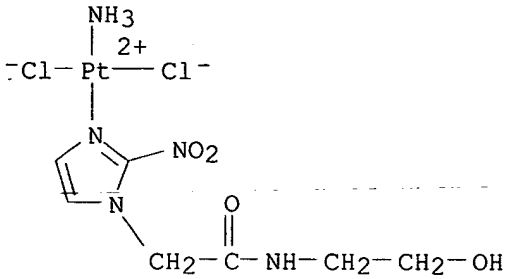
RN 114532-23-9 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



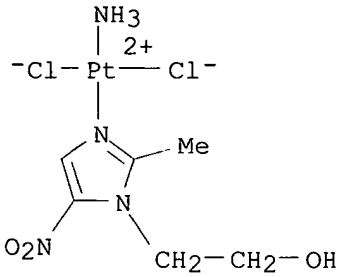
RN 121281-51-4 CAPLUS
CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



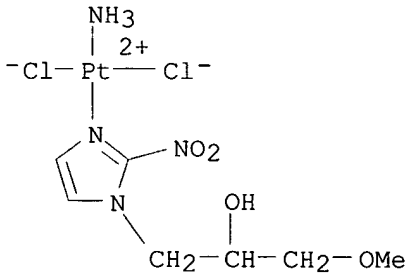
RN 121350-02-5 CAPLUS
CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]- (9CI) (CA INDEX NAME)



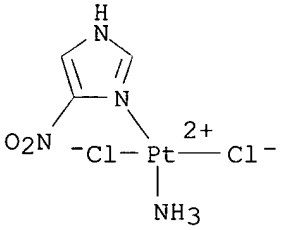
RN 121350-03-6 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-(9CI) (CA INDEX NAME)



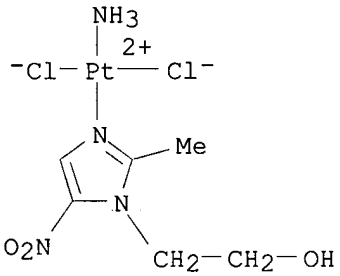
RN 121350-04-7 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]- (9CI) (CA INDEX NAME)



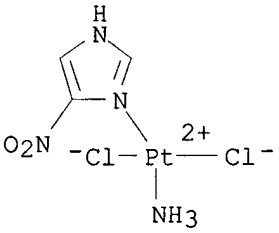
RN 121350-05-8 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)- (9CI) (CA INDEX NAME)



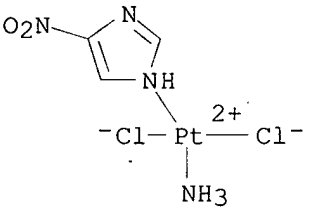
RN 121350-06-9 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



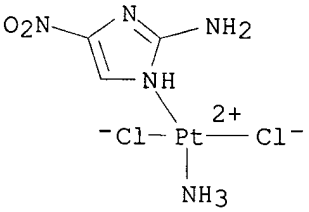
RN 121350-07-0 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



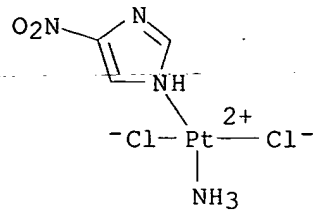
RN 121668-91-5 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)- (9CI) (CA INDEX NAME)



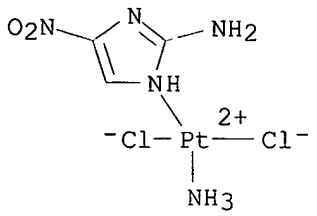
RN 121668-92-6 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazol-2-amine-N1)- (9CI) (CA INDEX NAME)



RN 121703-32-0 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 121703-33-1 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazol-2-amine-N1)-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 31 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1988:521599 CAPLUS
DOCUMENT NUMBER: 109:121599
TITLE: Preparation of ammine heterocyclyl platinum complexes as antitumor agents
INVENTOR(S): Totani, Tetsushi; Aono, Katsutoshi; Adachi, Yasuko
PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

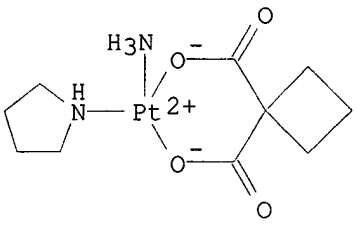
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 273315	A1	19880706	EP 1987-118819	19871218
EP 273315	B1	19920318		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 63264492	A2	19881101	JP 1987-321977	19871218
US 4902797	A	19900220	US 1987-135061	19871218
AT 73814	E	19920415	AT 1987-118819	19871218
ES 2032430	T3	19930216	ES 1987-118819	19871218
CA 1327039	A1	19940215	CA 1987-554853	19871218

PRIORITY APPLN. INFO.: JP 1986-303529 19861218
EP 1987-118819 19871218
OTHER SOURCE(S): MARPAT 109:121599
GI For diagram(s), see printed CA Issue.
AB Title compds. I (R = alkyl, OH, carboxy, alkoxy, halo, oxo; m = 2-7; X, Y = Cl, NO3; XY = carboxylate) are prepd. as antitumor agents. An aq. soln.

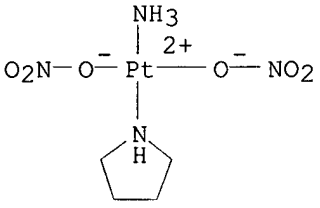
of (ammine)(piperidine)platinum (II) nitrate was ion-exchanged to give the corresponding hydroxide, which was treated with glycolic acid to give 20% (ammine)(piperidine)platinum glycolate, which proved quite effective against cisplatin-resistant L1210 leukemia.

IT **116219-17-1P 116219-18-2P 116219-19-3P**
116219-20-6P 116219-21-7P 116219-22-8P
116219-23-9P 116219-24-0P 116219-25-1P
116219-26-2P 116219-27-3P 116219-28-4P
116219-29-5P 116219-30-8P 116219-31-9P
116235-96-2P 116297-79-1P 116297-80-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antitumor agent)

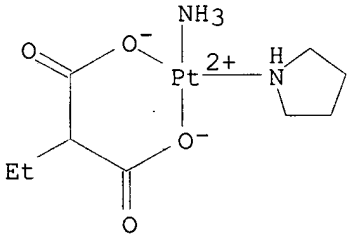
RN 116219-17-1 CAPLUS
CN Platinum, ammine[1,1-cyclobutanedicarboxylato(2-)](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



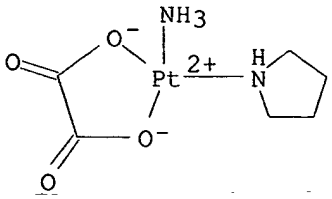
RN 116219-18-2 CAPLUS
CN Platinum, amminebis(nitrato-O)(pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



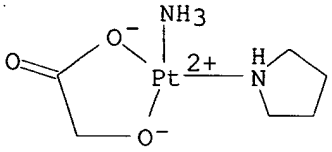
RN 116219-19-3 CAPLUS
CN Platinum, ammine[ethylpropanedioato(1-)-O,O'](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



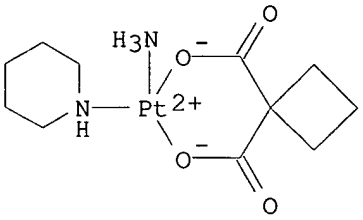
RN 116219-20-6 CAPLUS
CN Platinum, ammine[ethanedioato(2-)-O,O'](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



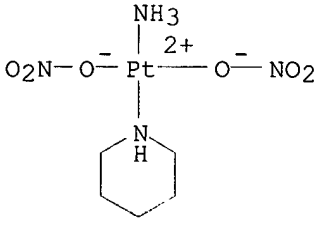
RN 116219-21-7 CAPLUS
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](pyrrolidine)-, (SP-4-4)- (9CI) (CA INDEX NAME)



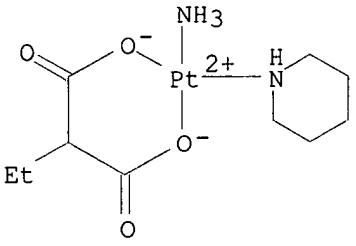
RN 116219-22-8 CAPLUS
CN Platinum, ammine[1,1-cyclobutanedicarboxylato(2-)](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



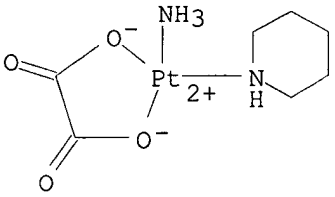
RN 116219-23-9 CAPLUS
CN Platinum, amminebis(nitrato-O)(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



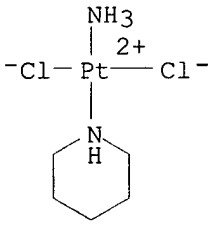
RN 116219-24-0 CAPLUS
CN Platinum, ammine[ethylpropanedioato(2-)-O,O'](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



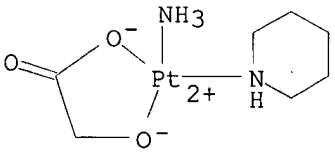
RN 116219-25-1 CAPLUS
CN Platinum, ammine[ethanedioato(2-)-O,O']piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



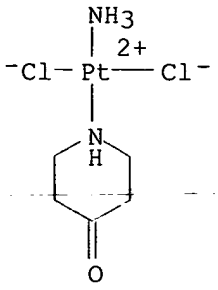
RN 116219-26-2 CAPLUS
CN Platinum, amminedichloro(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



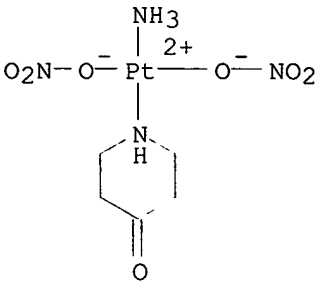
RN 116219-27-3 CAPLUS
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



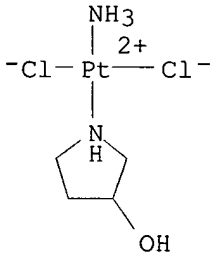
RN 116219-28-4 CAPLUS
CN Platinum, amminedichloro(4-piperidinone-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



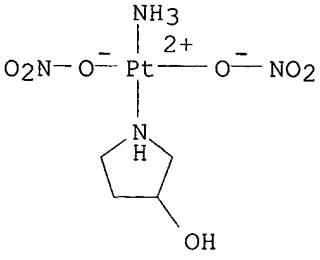
RN 116219-29-5 CAPLUS
CN Platinum, amminebis(nitrato-O)(4-piperidinone-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



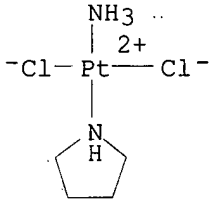
RN 116219-30-8 CAPLUS
CN Platinum, amminedichloro(3-pyrrolidinol-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



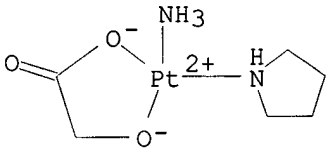
RN 116219-31-9 CAPLUS
CN Platinum, amminebis(nitrato-O)(3-pyrrolidinol-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



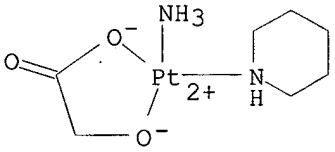
RN 116235-96-2 CAPLUS
CN Platinum, amminedichloro(pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



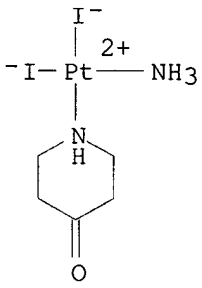
RN 116297-79-1 CAPLUS
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116297-80-4 CAPLUS
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](piperidine)-, (SP-4-4)- (9CI) (CA INDEX NAME)

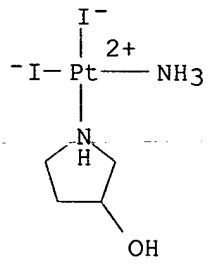


IT **116219-32-0P 116219-33-1P 116235-97-3P**
116235-98-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antitumor agent intermediate)
RN 116219-32-0 CAPLUS
CN Platinum, amminediiodo(4-piperidinone-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)

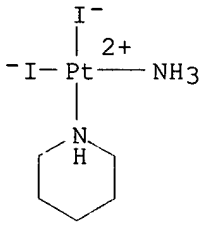


RN 116219-33-1 CAPLUS
CN Platinum, amminediiodo(3-pyrrolidinol-N1)-, (SP-4-3)- (9CI) (CA INDEX

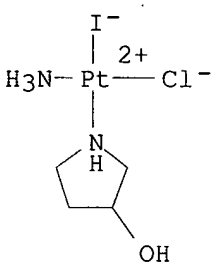
NAME)



RN 116235-97-3 CAPLUS
CN Platinum, amminediiodo(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116235-98-4 CAPLUS
CN Platinum, amminechloroiodo(3-pyrrolidinol-N1)- (9CI) (CA INDEX NAME)

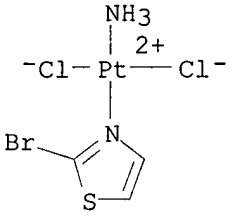


L22 ANSWER 32 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1988:215259 CAPLUS
DOCUMENT NUMBER: 108:215259
TITLE: Synthesis and characterization of new platinum(II) complexes containing thiazole and imidazole donors
AUTHOR(S): Muir, Mariel M.; Cadiz, Mayra E.; Baez, Adriana
CORPORATE SOURCE: Dep. Chem., Univ. Puerto Rico, Rio Piedras, 00932, P. R.
SOURCE: Inorg. Chim. Acta (1988), 151(3), 209-13
CODEN: ICHAA3; ISSN: 0020-1693
DOCUMENT TYPE: Journal
LANGUAGE: English
AB cis-Pt(NH3)LCl2 (L = thiazole, 2-bromothiazole, benzothiazole, 2,1,3-benzothiadiazole, 1,2,3-benzothiadiazole, imidazole, 1-methylimidazole) were prepd. The complexes were characterized by IR and UV-visible spectroscopy, 1H NMR and elemental analyses. The thiazoles and benzothiazoles were coordinated through the N heteroatom. Both the

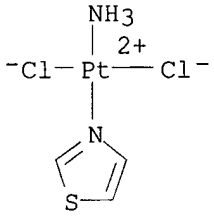
benzothiadiazoles were coordinated through S. Several of the complexes showed significant cytotoxic activity.

IT **114487-35-3P 114502-44-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cytotoxic activity of)

RN 114487-35-3 CAPLUS
CN Platinum, ammine(2-bromothiazole-N3)dichloro-, (SP-4-3)- (9CI) (CA INDEX NAME)

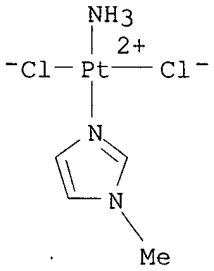


RN 114502-44-2 CAPLUS
CN Platinum, amminedichloro(thiazole-.kappa.N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)

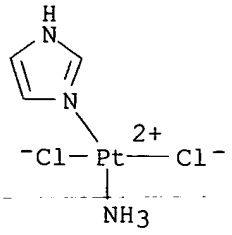


IT **114487-38-6P 114487-39-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

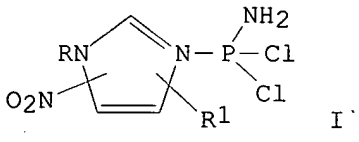
RN 114487-38-6 CAPLUS
CN Platinum, amminedichloro(1-methyl-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 114487-39-7 CAPLUS
CN Platinum, amminedichloro(1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



L22 ANSWER 33 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1988:108927 CAPLUS
DOCUMENT NUMBER: 108:108927
TITLE: Radiosensitizers targeted to DNA using platinum. Synthesis, characterization, and DNA binding of cis-[PtCl2(NH3)(nitroimidazole)]
AUTHOR(S): Farrell, Nicholas; Skov, Kirsten A.
CORPORATE SOURCE: Dep. Chem., Univ. Vermont, Burlington, VT, 05405, USA
SOURCE: J. Chem. Soc., Chem. Commun. (1987), (13), 1043-4
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

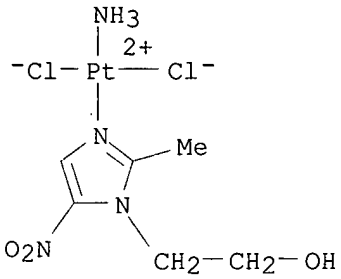


I

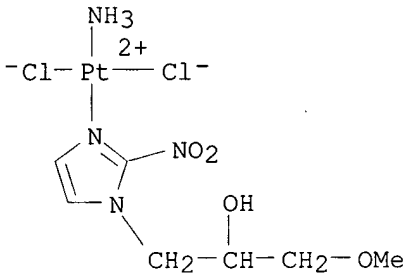
AB The prepn. and characterization of cis-[PtCl2(NH3)(misonidazole)] (I; R = CH2CH(OH)CH2OMe, R' = NO2) and cis-[PtCl2(NH3)(metronidazole)] (I; R = CH2CH2OH, R' = Me) are described and their binding to DNA and radiosensitizing activity were examd. Both complexes showed considerable DNA binding and had greater radiosensitizing activity then their bis analogs. The results indicate that radiosensitizing ligands can be targeted to DNA by complexation with Pt.

IT **110321-22-7P 112198-62-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and DNA binding and radiosensitizing efficacy of)

RN 110321-22-7 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 112198-62-6 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



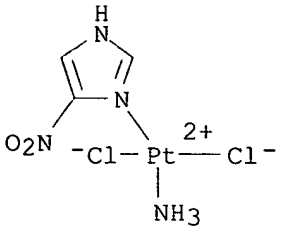
L22 ANSWER 34 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1988:71355 CAPLUS
DOCUMENT NUMBER: 108:71355
TITLE: Platinum complexes with one radiosensitizing ligand [PtCl2(NH3) (sensitizer)]: radiosensitization and toxicity studies in vitro
AUTHOR(S): Skov, Kirsten A.; Farrell, Nicholas P.; Adomat, Hans
CORPORATE SOURCE: Med. Biophys. Unit, British Columbia Cancer Res. Cent., Vancouver, BC, V5Z 1L3, Can.
SOURCE: Radiat. Res. (1987), 112(2), 273-82
CODEN: RAREAE; ISSN: 0033-7587
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Complexes of general formula [PtCl2(NH3)L] with 1 radiosensitizing ligand per Pt are compared with ligand L alone, complexes with 2 radiosensitizers per Pt [PtCl2L2], and their analogs with NH3 ligands, with respect to radiosensitizing properties and toxicity in CHO cells. Radiosensitizing ligands, L, were misonidazole, metronidazole, 4(5)-nitroimidazole, and 2-amino-5-nitrothiazole, and the ammine analogs were cis- and trans-DDP [diamminedichloroplatinum(II)] and the monoammine, K[PtCl3(NH3)]. Results are related to a previous study on plasmid DNA binding by these series. The toxicity of the mono series [PtCl2(NH3)L], attributable to DNA binding, is much higher than the corresponding bis complexes, [PtCl2L2]. For L = misonidazole, toxicity is similar to the monoammine, but higher in hypoxic than in aerobic cells. trans-[PtCl2(NH3)-(misonidazole)] is more toxic than the cis isomer. Except for L = 4(5)-nitroimidazole, the complexes [PtCl2(NH3)L] are more toxic than L inm air and hypoxia. Hypoxic radiosensitization by the mono complexes is comparable to the monoammine and is not better than free sensitizers, again except for L = 4(5)-nitroimidazole. Significantly lower sensitization is obsd. in oxic

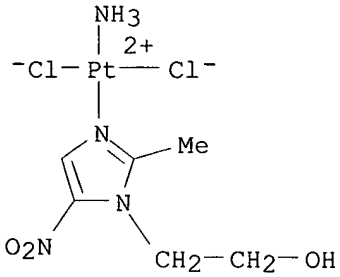
cells. The bis complexes [PtCl2L2], which do not bind to DNA as well as the mono complexes, are less effective radiosensitizers and less toxic than the [PtCl2(NH3)L] series.

IT **110302-83-5 110321-22-7 110321-23-8 112198-62-6 114532-23-9**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (radiosensitizing activity and toxicity of, in CHO cells)

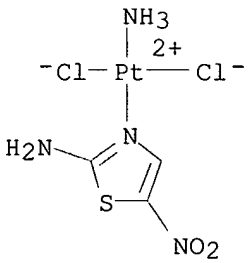
RN 110302-83-5 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



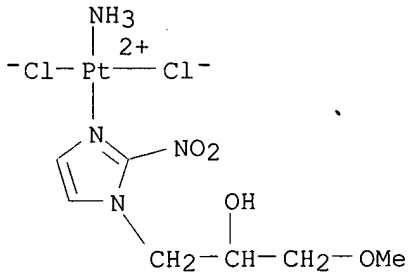
RN 110321-22-7 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



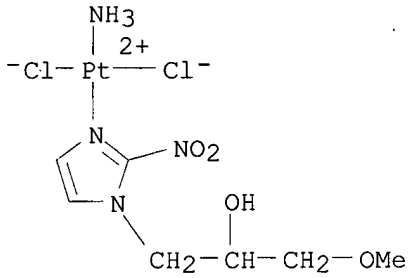
RN 110321-23-8 CAPLUS
CN Platinum, amminedichloro(5-nitro-2-thiazolamine-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 112198-62-6 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 114532-23-9 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)

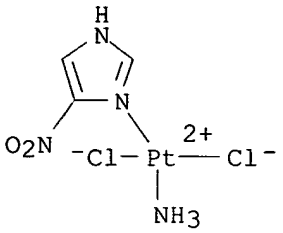


L22 ANSWER 35 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:529989 CAPLUS
DOCUMENT NUMBER: 107:129989
TITLE: Assessment of DNA binding of platinum-radiosensitizer complexes by inhibition of restriction enzymes
AUTHOR(S): Skov, Kirsten A.; Adomat, Hans; Konway, Desmond C.; Farrell, Nicholas P.
CORPORATE SOURCE: Med. Biophys. Unit, British Columbia Cancer Res. Cent., Vancouver, BC, V5Z 1L3, Can.
SOURCE: Chem.-Biol. Interact. (1987), 62(2), 117-29
CODEN: CBINA8; ISSN: 0009-2797
DOCUMENT TYPE: Journal
LANGUAGE: English

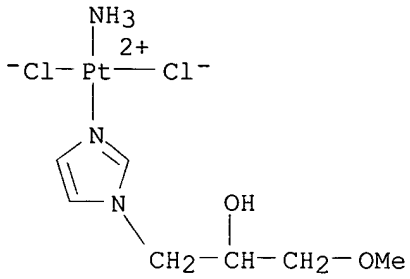
AB A simple and rapid method has been used to compare the binding of Pt complexes to DNA, in a relatively qual. manner. A compd. bound at or near the restriction site inhibits enzymic cleavage of DNA; inhibition of BamHI and EcoRI activities by complexes was assessed in this study using linearized pSV2-gpt plasmid. The particular interest was in DNA binding by complexes of Pt with known org. radiosensitizers (RS), to det. whether the Pt was able to target the RS to the DNA. Although the PT-RS complexes investigated themselves have moderate radiosensitizing ability (like the inorg. complexes, cis- or trans-DDP), none of the Pt-RS inhibit to the same extent as cis- or trans-DDP. However, there appears to be some correlation between enhanced radiosensitization by Pt-RS over Pt(RS)2, with the degree of Pt binding (as assessed by the assay). The results using isolated DNA suggest that not all complexes bind well (e.g., Pt with 2 RS ligands), but that in certain cases (e.g., Pt with only 1 RS), it is possible to target the drug to the DNA. An ammine or amine ligand may be required to target a radiosensitizer to DNA using Pt.

IT **110302-83-5 110321-21-6 110321-22-7**

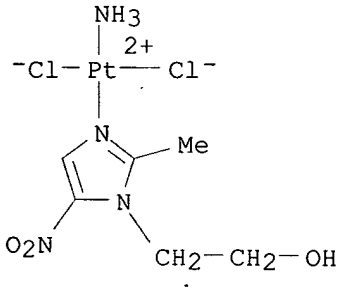
110321-23-8
RL: BIOL (Biological study)
(DNA binding of, restriction enzymes inhibition in assessment of, radiosensitization in relation to)
RN 110302-83-5 CAPLUS
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



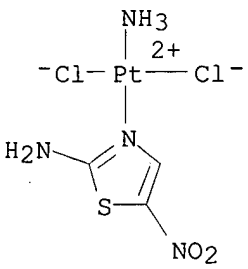
RN 110321-21-6 CAPLUS
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 110321-22-7 CAPLUS
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 110321-23-8 CAPLUS
CN Platinum, amminedichloro(5-nitro-2-thiazolamine-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



L22 ANSWER 36 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1986:466445 CAPLUS
DOCUMENT NUMBER: 105:66445
TITLE: Platinum coordination compounds for linking to monoclonal antibodies
INVENTOR(S): Heffernan, James Gerard; Hydes, Paul Cedric; Picker, Donald Harold
PATENT ASSIGNEE(S): Johnson Matthey PLC, UK
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

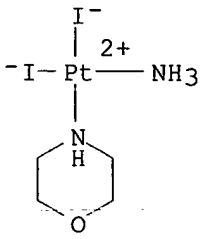
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 167310	A2	19860108	EP 1985-304131	19850611
EP 167310	A3	19860423		
EP 167310	B1	19910529		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 63919	E	19910615	AT 1985-304131	19850611
AU 8543930	A1	19870108	AU 1985-43930	19850621
AU 583827	B2	19890511		
JP 61083194	A2	19860426	JP 1985-138046	19850626
JP 06062654	B4	19940817		
CA 1283750	A1	19910430	CA 1985-485669	19850627
US 4760155	A	19880726	US 1986-873130	19860611
US 4956454	A	19900911	US 1988-184140	19880421

PRIORITY APPLN. INFO.: US 1984-625251 19840627
EP 1985-304131 19850611
US 1986-873130 19860611

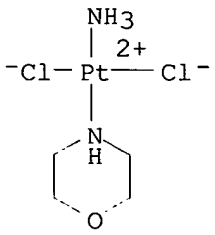
AB Pt compds. YR1NHR2PtX2NH2R, e.g., H3NPtCl2R3, R3 = NH2(CH2)3Co2Et, p-H2NC6H4CO2H, morpholino, HOCH2CMe2NH2, HOCH2CH2NH2, etc., were prepd. for linking to monoclonal antibodies to provide a moiety which stabilizes the antibodies to in vivo hydrolysis and localizes the pharmacol. activity, i.e. targeting of the drug. A soln. of K[PtCl3(NH3)] was treated with a soln. of H2N(CH2)3CO2Et.cntdot.HCl and K2CO3 to give PtCl2NH3[NH2(CH2)3CO2Et]. This compd. and PtCl2NH3[NH2C6H4OH-m] gave therapeutic indexes (LD50/ED90) of 4.7 and 2.5 orally when tested against ADJ/PC6 tumor in Balb/C mice.

IT **103436-53-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with silver nitrate and hydrochloric acid)

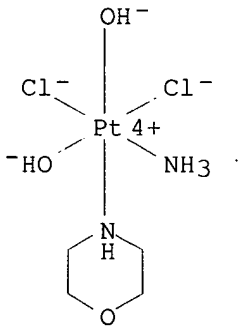
RN 103436-53-9 CAPLUS
CN Platinum, amminediiodo(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



IT **103436-43-7P 103436-44-8P**
RL: PREP (Preparation)
(prepn. of, for linking to monoclonal antibodies, for drug delivery)
RN 103436-43-7 CAPLUS
CN Platinum, amminedichloro(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 103436-44-8 CAPLUS
CN Platinum, amminedichlorodihydroxy(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



L22 ANSWER 37 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1986:563817 CAPLUS
DOCUMENT NUMBER: 105:163817
TITLE: Metal-stabilized rare tautomers of nucleobases. 1. Iminooxo form of cytosine: formation through metal migration and estimation of the geometry of the free tautomer
AUTHOR(S): Lippert, Bernhard; Schoellhorn, Helmut; Thewalt, Ulf
CORPORATE SOURCE: Inst. Anorg. Anal. Chem., Univ. Freiburg, Freiburg, 7800, Fed. Rep. Ger.
SOURCE: J. Am. Chem. Soc. (1986), 108(21), 6616-21
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal

Searched by Barb O'Bryen, STIC 308-4291

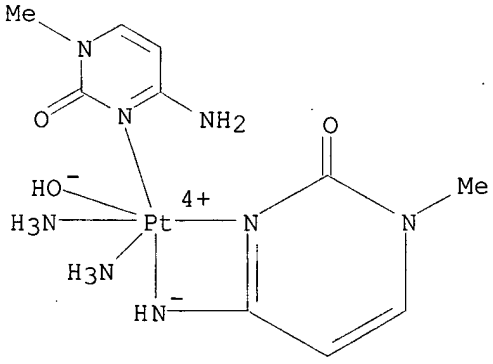
LANGUAGE: English

AB A way is presented for estg. the geometry or rare nucleobase tautomers by (i) prepg. metal complexes of the rare tautomers, (ii) detg. the crystal structure of the metal complex as accurately as possible, and (iii) subtracting the effect of the metal on the ligand geometry. The prepn., crystal structures, and spectroscopic (1H NMR, Raman) properties are reported of 2 modifications of trans,trans,trans-[Pt(NH3)2(OH)2(1-MeC)2].2H2O (I; 1-MeC = 1-methylcytosine). Neutral 1-MeC ligands are coordinated to Pt through the deprotonated exocyclic N4' positions with N3 protonated. Thus the 1-MeC ligands are in the rare iminooxo tautomer form of cytosine. Modification A of I crystallizes in the triclinic space group P.hivin.1 with a 5.819(2), b 7.178(2), c 13.626(7) .ANG., .alpha. 90.72(4), .beta. 105.82(3), .gamma. 94.02(8).degree., Z = 1, R = 0.020, Rw(F) = 0.020 for 1911 independent reflections. Modification B of I crystallizes in the monoclinic space group P21/c with a 8.892(1), b 11.496(1), c 11.010(1) .ANG., .beta. 100.05(2).degree., Z = 2, R = 0.040, Rw(F) = 0.045 for 2525 independent reflections. The geometries of the 1-MeC ligands in A and B differ from that of the normal, uncomplexed 1-MeC tautomer with significant differences in C4-N4' and N1-C2 bond lengths (shorter in I), in N3-C4 and C2-N3 bond lengths (longer in I), as well as in ring angles at positions 2, 3, and 4. The effect of PtIV on the geometry of the cytosine ring is minimal and essentially restricted to the exocyclic imino group by slightly lengthening the C4-N4' bond. Formation of I occurs in 3 distinct steps, all of which were detected in soln., and the resp. species were isolated: (i) Pt coordination via N3, (ii) chelate formation through N3 and N4' with elimination of H2O from the complex, and (iii) addn. of H2O to the complex with reformation of Pt-OH and opening of the Pt-N3 bond. The acidity of the rare 1-MeC tautomer in its PtIV complexed form (deprotonation at N3) was detd. as .apprx.5.8 (pKa1) and .apprx.8.2 (pKa2).

IT **102149-63-3P**
RL: PREP (Preparation)
(formation by intermol. condensation and subsequent intermol. condensation and hydrolysis of, methylcytosine linkage isomerization and tautomerization in relation to)

RN 102149-63-3 CAPLUS

CN Platinum(2+), (4-amino-1-methyl-2(1H)-pyrimidinonato-N3,N4)(4-amino-1-methyl-2(1H)-pyrimidinone-N3)diamminehydroxy-, (OC-6-43)- (9CI) (CA INDEX NAME)



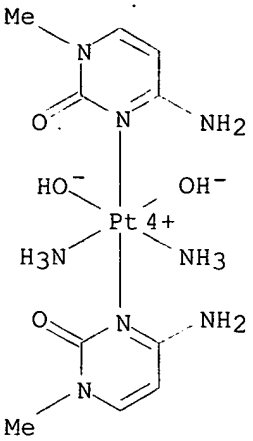
IT **101152-06-1**
RL: RCT (Reactant)
(linkage isomerization, tautomerization via intermol. condensation and hydrolysis of)

RN 101152-06-1 CAPLUS

CN Platinum(2+), bis(4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)diamminedihydroxy-, (OC-6-12)-, dinitrate (9CI) (CA INDEX NAME)

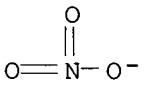
CM 1

CRN 101152-05-0
CMF C10 H22 N8 O4 Pt
CCI CCS
CDES 7:OC-6-12



CM 2

CRN 14797-55-8
CMF N O3



L22 ANSWER 38 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1986:417097 CAPLUS
DOCUMENT NUMBER: 105:17097
TITLE: Unusual four-membered chelate rings of platinum(IV) with a cytosine nucleobase
AUTHOR(S): Schoellhorn, Helmut; Beyerle-Pfnuer, Rut; Thewalt, Ulf; Lippert, Bernhard
CORPORATE SOURCE: Anorg.-Chem. Inst., Tech. Univ. Muenchen, Garching, 8046, Fed. Rep. Ger.
SOURCE: J. Am. Chem. Soc. (1986), 108(13), 3680-8
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Oxidn. of trans-[Pt(NH3)2(1-MeCH)2](NO3)2 (1-MeCH = 1-methylcytosine, bound to Pt through N3) with H2O2 gives trans,trans,trans-[Pt(NH3)2(1-MeCH)2(OH)2](NO3)2.2H2O (I). From strongly acidic HNO3 soln. I crystallizes in its monoprotonated form trans,trans-[Pt(NH3)2(1-MeCH)2(OH)(OH2)](NO3)3.3H2O (II). In weakly to moderately acidic medium (HNO3) or on warming, I is converted into trans-[Pt(NH3)2(1-MeCH)(1-

MeC)(OH](NO3)2.H2O (III) and trans,trans-[Pt(NH3)2(1-MeC)2](NO3)2.2H2O (IV), which contain 1 and 2 chelating, anionic 1-methylcytosinato ligands bound to the Pt through N3 and N4. The crystal structures of I, II, III, and IV were detd. The N3,N4 chelates in III and IV represent novel metal binding patterns with a cytosine nucleobase and at the same time the 1st examples of nucleobase chelates involving Pt. In these chelates, Pt-N3 and Pt-N4 distances are short and of comparable lengths, namely 1.969(13) and 2.032(16) .ANG. in II and 2.037(9) and 2.038(10) .ANG. in IV. The soln. behavior of I, II, III, and IV was studied by 1H NMR spectroscopy and potentiometric titrn. The pKa for the equil. II .dblharw. I + H+ is <1. Heating of I (II) in 3.5N HNO3 leads to displacement of 1-MeC. DCl (1N) causes substitution of OH ligands by Cl-, the substitution of the C5 proton of 1-MeC by Cl-, and eventually displacement of the modified nucleobase. Conversion of I into III and IV occurs in slight to moderate acidic soln. (pH 5.5-1.5). Isolated II (IV), when redissolved in H2O, equilibrates with I and IV (III). Two feasible ways of chelate formation are proposed, and the possible significance of 4-membered chelate rings in metal ions-nucleobase interactions is briefly discussed.

IT **102149-65-5P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

RN 102149-65-5 CAPLUS

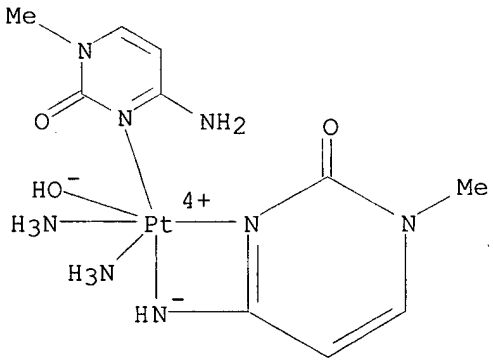
CN Platinum(2+), (4-amino-1-methyl-2(1H)-pyrimidinonato-N3,N4)(4-amino-1-methyl-2(1H)-pyrimidinone-N3)diamminehydroxy-, (OC-6-43)-, dinitrate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 102149-64-4
CMF C10 H20 N8 O3 Pt . 2 N O3

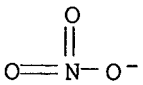
CM 2

CRN 102149-63-3
CMF C10 H20 N8 O3 Pt
CCI CCS
CDES 7:OC-6-43

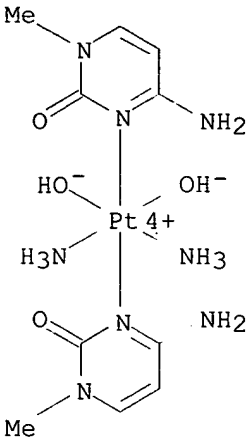


CM 3

CRN 14797-55-8
CMF N O3



IT **102210-45-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 102210-45-7 CAPLUS
CN Platinum(2+), bis(4-amino-1-methyl-2(1H)-pyrimidinone-N3)diamminedihydroxy-, dichloride, (OC-6-12)- (9CI) (CA INDEX NAME)



2 Cl^-

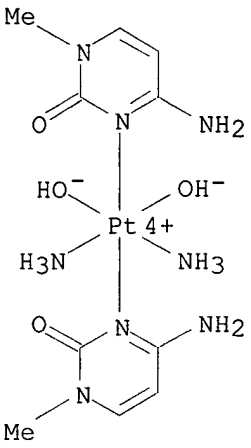
IT **102149-59-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure and reaction with nitric acid)
RN 102149-59-7 CAPLUS
CN Platinum(2+), bis(4-amino-1-methyl-2(1H)-pyrimidinone-N3)diamminedihydroxy-, (OC-6-12)-, dinitrate, dihydrate (9CI) (CA INDEX NAME)

CM 1

CRN 101152-06-1
CMF C10 H22 N8 O4 Pt . 2 N O3

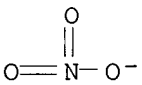
CM 2

CRN 101152-05-0
CMF C10 H22 N8 O4 Pt
CCI CCS
CDES 7:OC-6-12

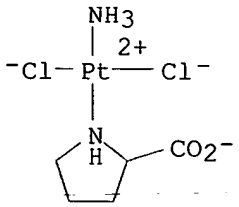


CM 3

CRN 14797-55-8
CMF N O3



L22 ANSWER 39 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:648866 CAPLUS
DOCUMENT NUMBER: 107:248866
TITLE: Complex compounds of platinum with chiral bioligands: molecular structure and absolute configuration
AUTHOR(S): Minacheva, L. Kh.; Slyudkin, O. P.; Porai-Koshits, M. A.
CORPORATE SOURCE: USSR
SOURCE: Probl. Sovrem. Bioneorgan. Khimii. Mater. Vyezd. Ses., Novosibirsk, 26-28 Marta, 1984, Novosibirsk (1986) 56-63
From: Ref. Zh., Khim. 1987, Abstr. No. 1B2143
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Title only translated.
IT **38991-52-5**
RL: PRP (Properties)
(mol. structure and abs. configuration of)
RN 38991-52-5 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-.kappa.N1)-, hydrogen, (SP-4-1)-(9CI) (CA INDEX NAME)



H^+

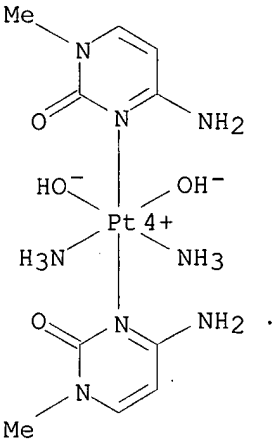
L22 ANSWER 40 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1986:140933 CAPLUS
DOCUMENT NUMBER: 104:140933
TITLE: A novel metal binding mode of cytosine nucleobases: N(3),N(4) chelation
AUTHOR(S): Beyerle-Pfnuer, Rut; Schoellhorn, Helmut; Thewalt, Ulf; Lippert, Bernhard
CORPORATE SOURCE: Anorg.-Chem. Inst., Tech. Univ. Muenchen, Garching, D-8046, Fed. Rep. Ger.
SOURCE: J. Chem. Soc., Chem. Commun. (1985), (21), 1510-11
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structure of [Pt(NH3)2L2](NO3)2.2H2O (I), prepd. from trans-[Pt(NH3)2(HL)2](NO3)2 (L = 1-methylcytosine) by oxidn. with H2O2 followed by warming in aq. HNO3, was detd. by x-ray crystallog. Crystals of I are monoclinic, space group P21/c, with a 7.230(3), b 10.576(4), c 13.186(2) .ANG., .beta. 100.92(3).degree., and d.(calcd.) = 2.138 g/cm3 for Z = 2. Results were refined to an R of 0.048 for 1419 reflections. I is the 1st example of anionic 1-methylcytosine acting as a chelating ligand through N-3 and N-4.

IT **101152-06-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and dehydroxylation of)
RN 101152-06-1 CAPLUS
CN Platinum(2+), bis(4-amino-1-methyl-2(1H)-pyrimidinone-.kappa.N3)diamminedihydroxy-, (OC-6-12)-, dinitrate (9CI) (CA INDEX NAME)

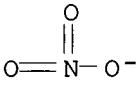
CM 1

CRN 101152-05-0
CMF C10 H22 N8 O4 Pt
CCI CCS
CDES 7:OC-6-12



CM 2

CRN 14797-55-8
CMF N O3



L22 ANSWER 41 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1986:60959 CAPLUS
DOCUMENT NUMBER: 104:60959
TITLE: Cisplatin analogs. cis-Dichloro(amino acid)(tert-butylamine)platinum(II) complexes and their adducts with guanosine
AUTHOR(S): Pasini, Alessandro; Bersanetti, Erik
CORPORATE SOURCE: Dip. Chim. Inorg. Metallorg., Univ. Milan, Milan, 20133, Italy
SOURCE: Inorg. Chim. Acta (1985), 107(4), 259-67
CODEN: ICHAA3; ISSN: 0020-1693
DOCUMENT TYPE: Journal
LANGUAGE: English

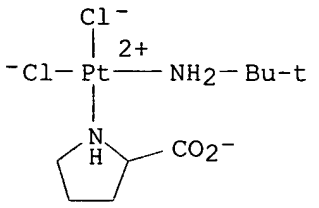
AB cis-[PtCl2(aaH)(tba)] (I) (aaH = NH2CHRCO2H {R = H, CH3 (L-, D-), CH(CH3)2 (L-, D-), CH2CH(CH3)2 (L-, D-), H2C6H5 (L-, D-), CH2OH (L-, D-), CHOHCH3 (L-, threo)}, proline (L-); tba = tert-BuNH2) were prepd. The CD spectra show that the phenylalanine and proline complexes have an anomalous conformation in water soln. Reaction of I with guanosine (guo) gave cis-[Pt(aaH)(tba)guo)2]Cl2 (II), in which IR and NMR evidence suggest N(7) coordination of guo. NMR and CD data suggest that in II the 2 guanosine ligands are arranged head-to-head and form a right-hand helix. The bulkiness of the other ligands make rotation around the Pt-N(7) bonds a slow process on the NMR time scale. The chiroptical properties of II are not greatly affected by the abs. configuration of the amino acid, the right-hand screw probably arising by some guo-guo interaction since the derivs. of 9-methylguanine with chiral amino acids do not possess this conformation. Preliminary results on the reaction between I and calf thymus DNA are also briefly reported. They show that the interaction of I with DNA is of a lower extent than in the case of cisplatin and its

diamine analogs, and that it is independent on the configuration of the amino acids. All these results are briefly discussed and tentatively correlated with the low antitumor activity of I.

IT **99626-44-5**
RL: PRP (Properties)
(reaction with guanosine and conformation of)

RN 99626-44-5 CAPLUS

CN Platinate(1-), dichloro(2-methyl-2-propanamine)(L-prolinato-N1)-, hydrogen, (SP-4-3)- (9CI) (CA INDEX NAME)



L22 ANSWER 42 OF 63 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1985:124545 CAPLUS

DOCUMENT NUMBER: 102:124545

TITLE: The reaction of platinum antitumor drugs with selected nucleophiles. II. Preparation and characterization of coordination compounds of platinum(II) and L-histidine

AUTHOR(S): Saudek, V.; Pivcova, H.; Noskova, D.; Drobnik, J.

CORPORATE SOURCE: Inst. Macromol. Chem., Czech. Acad. Sci., Prague, 162 06, Czech.

SOURCE: J. Inorg. Biochem. (1985), 23(1), 55-72
CODEN: JIBIDJ; ISSN: 0162-0134

DOCUMENT TYPE: Journal

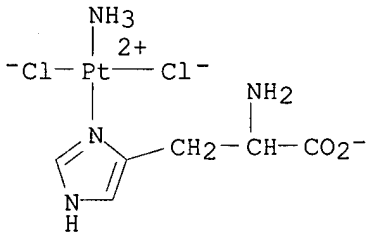
LANGUAGE: English

AB Various Pt(II)-L-histidine (HL) complexes were prepd. by reaction of K2PtCl4 (I) or cis-[Pt(NH3)2Cl2] (II) with HL and analyzed by 1H and 13C NMR spectroscopy, electrophoresis, and ion-exchange chromatog. HL may be coordinated to Pt by the imidazole imino group and/or the .alpha.-amino group; the carboxy group always remains free. I reacted with HL and HCl to give 2 isomers of cis-Pt(HL)2Cl2 in which HL is coordinated through the amino N or imino N atom. II reacts with HL to give a mixt. of compds. including cis-Pt(NH3)2HL (III) and 3 isomers of cis-[Pt(NH3)2(HL)2]Cl2, differing in the monodentate mode of coordination of HL. The reaction of III with HCl gave 2 isomers of Pt(NH3)(HL)Cl2 in which HL is ligated to Pt by an amino or imino group. The methods applied are suitable for analyzing reactions of HL with II under model conditions similar to physiol. conditions.

IT **95381-03-6P**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, from platinum histidine complex and hydrochloric acid)

RN 95381-03-6 CAPLUS

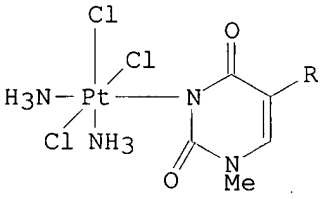
CN Platinate(1-), amminedichloro(L-histidinato-N3)-, hydrogen, monohydrochloride (9CI) (CA INDEX NAME)



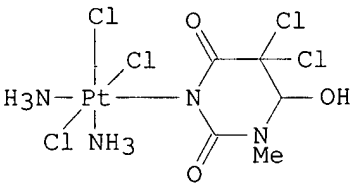
● HCl

● H^+

L22 ANSWER 43 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1985:24580 CAPLUS
DOCUMENT NUMBER: 102:24580
TITLE: cis-Diammineplatinum(IV) complexes of uracil through chlorine treatment of a platinum(II) complex: oxidative addition to the metal and modification (chlorine substitution, hypochlorous acid addition) of the nucleobase
AUTHOR(S): Mueller, Gerhard; Riede, Juergen; Beyerle-Pfnuer, Rut; Lippert, Bernhard
CORPORATE SOURCE: Anorg.-Chem. Inst., Tech. Univ. Muenchen, Garching, 8046, Fed. Rep. Ger.
SOURCE: J. Am. Chem. Soc. (1984), 106(25), 7999-8001
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 102:24580
GI



II



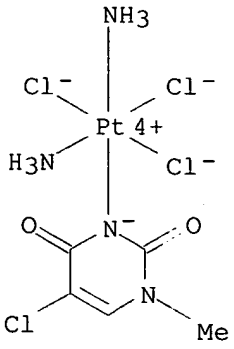
III

AB Reaction of cis-(NH3)2PtRCl (I; R = 1-methyluracil anion) with Cl2 in aq. soln. gave 3 Pt(IV)-uracil derivs. II (R = H, Cl) and III, depending on reaction conditions. In formation of II (R = H) from I and chlorine water, the expected oxidn. of Pt(II) to Pt(IV) took place. Treating of I with Cl gas gave II (R = Cl) in which the H at the C(5) position of the heterocyclic ring was replaced by Cl. In formation of III, from I and Cl in low yield, or from II (R = Cl) and Cl in good yield, HOCl added to the double bond of the uracil ligand. The x-ray crystal structures of II (R = Cl) and III, which were similar, showed exocyclic O atoms were locked between a pair of Cl ligands and one Cl and one NH3 ligand, resp., leading

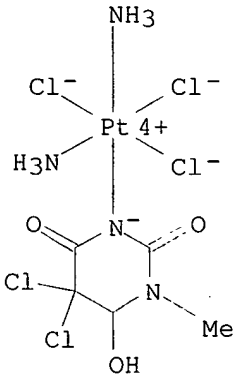
to small dihedral angles between the rings and the Pt(NH3)2ClN(3) plane.

IT **93474-05-6P 93474-06-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

RN 93474-05-6 CAPLUS
CN Platinum, diamminetrichloro(5-chloro-1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)-, (OC-6-31)- (9CI) (CA INDEX NAME)

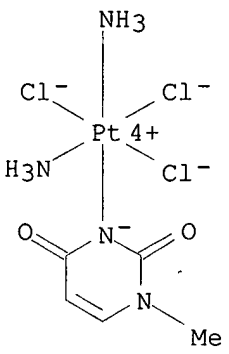


RN 93474-06-7 CAPLUS
CN Platinum, diamminetrichloro(5,5-dichlorodihydro-6-hydroxy-1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)-, (OC-6-31)- (9CI) (CA INDEX NAME)

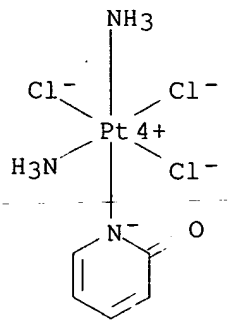


IT **93474-04-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

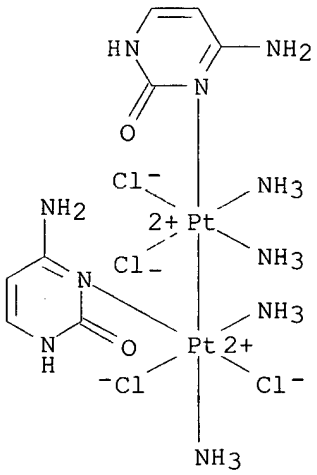
RN 93474-04-5 CAPLUS
CN Platinum, diamminetrichloro(1-methyl-2,4(1H,3H)-pyrimidinedionato-N3)-, (OC-6-31)- (9CI) (CA INDEX NAME)



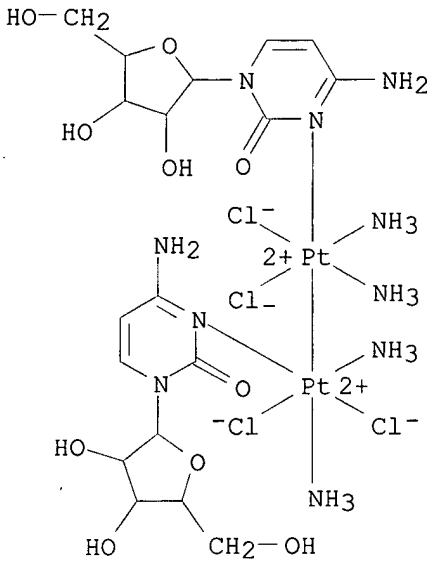
L22 ANSWER 44 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1983:498147 CAPLUS
DOCUMENT NUMBER: 99:98147
TITLE: Mononuclear complexes of cis-diammineplatinum(II) and -(IV) with .alpha.-pyridone. Structures of cis-[Pt(NH3)2(C5H4NOH)2]Cl2, mer-[Pt(NH3)2(C5H4NO)Cl3], and cis-[Pt(NH3)2(C5H4NOH)Cl](NO3)
AUTHOR(S): Hollis, L. Steven; Lippard, Stephen J.
CORPORATE SOURCE: Dep. Chem., Columbia Univ., New York, NY, 10027, USA
SOURCE: Inorg. Chem. (1983), 22(19), 2708-13
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB cis-[Pt(NH3)2(HL)2]Cl2 (I), mer-[Pt(NH3)2LCl3] (II), and cis-[Pt(NH3)2(HL)Cl]NO3 (III) (HL = .alpha.-pyridone) were prepd. and characterized by x-ray diffraction. The 2-hydroxypyridine ligands in I are oriented in the anti rotational conformation, and the resulting atropisomer has crystallog. required C2 symmetry. The isolation and characterization of these mononuclear complexes contribute significantly to the anal. of the reaction chem. of cis-diammineplatinum(II) with .alpha.-pyridone that leads to the formation of the cis-diammineplatinum .alpha.-pyridone blue. Crystallog. data are as follows: I is monoclinic, a 9.072(2), b 22.875(3), c 8.003(1) .ANG., .beta. 109.24(1).degree., V = 1568 .ANG.3, Z = 4, space group C2/c; II is monoclinic, a 7.490(2), b 9.309(2), c 15.294(3) .ANG., .beta. 100.09(3).degree., V = 1050 .ANG.3, Z = 4, space group P21/c; III is triclinic, a 10.706(3), b 12.552(4), c 4.151(1) .ANG., .alpha. 95.57(1), .beta. 92.32(3), .gamma. 99.05(3).degree., V = 547.4 .ANG.3, Z = 2, space group P.hivin.1.
IT **86471-90-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and crystal structure of)
RN 86471-90-1 CAPLUS
CN Platinum, diamminetrichloro(2(1H)-pyridinonato-N1)-, (OC-6-31)- (9CI) (CA INDEX NAME)



L22 ANSWER 45 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1982:448429 CAPLUS
DOCUMENT NUMBER: 97:48429
TITLE: ESR study on complexes formed on reaction of cis-dichlorodiammineplatinum(II) with cytosine and cytidine
AUTHOR(S): Neubacher, H.; Krieger, J.; Zaplatynski, P.; Lohmann, W.
CORPORATE SOURCE: Inst. Biophys., Justus-Liebig-Univ., Giessen, D-6300, Fed. Rep. Ger.
SOURCE: Z. Naturforsch., B: Anorg. Chem., Org. Chem. (1982), 37B(6), 790-2
CODEN: ZNBAD2; ISSN: 0340-5087
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The ESR spectra of novel paramagnetic complexes between cis-dichlorodiammineplatinum(II) and cytosine or cytidine in aq. solns. are presented and discussed. The results imply a complex contg. a binuclear metal-metal bonded Pt moiety with an unpaired electron spin delocalized over the dz2-orbitals.
IT **82383-99-1 82384-00-7**
RL: PRP (Properties)
(ESR of)
RN 82383-99-1 CAPLUS
CN Platinum, bis(4-amino-2(1H)-pyrimidinone-N3)tetraamminetetrachlorodi-, (Pt-Pt), stereoisomer (9CI) (CA INDEX NAME)



RN 82384-00-7 CAPLUS
CN Platinum, tetraamminetetrachlorobis(cytidine-N3)di-, (Pt-Pt), stereoisomer (9CI) (CA INDEX NAME)



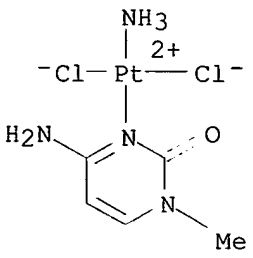
L22 ANSWER 46 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1981:149402 CAPLUS
DOCUMENT NUMBER: 94:149402
TITLE: Crystal structures of trans-dichloroammine(1-methylcytosine-N3)platinum(II) hemihydrate, [PtCl2(NH3)(C5H7N3)].1/2H2O, and trans-diamminebis(1-methylcytosine-N3)platinum(II) dinitrate. Evidence for the unexpected lability of ammonia in a cis-diammineplatinum(II) complex
AUTHOR(S): Lippert, B.; Lock, C. J. L.; Speranzini, R. A.
CORPORATE SOURCE: Inst. Mater. Res., McMaster Univ., Hamilton, ON, L8S 4M1, Can.
SOURCE: Inorg. Chem. (1981), 20(3), 808-13
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two trans-ligand Pt(II) complexes were isolated and studied. trans-PtCl2(NH3)L.0.5H2O (I) (L = 1-methylcytosine-N3) has the space group C2/c with a 14.697(6), b 6.816(1), c 23.225(4) .ANG., .beta. 112.03(2).degree., and Z = 8. trans-[Pt(NH3)2L](NO3)2 (II) has space group P21/c with a 6.834(2), b 10.315(2), c 13.349(3) .ANG., .beta. 107.90(2).degree., and Z = 2. Data for both compds. were collected with use of Mo K.alpha. radiation and a Syntex P21 diffractometer. Both crystal structures were detd. by std. methods. I was refined to R1 = 0.0612 and R2 = 0.0775 on the basis of 2503 independent reflections. The final R1 = 0.0346 and R2 = 0.0410 for II were based on 1687 independent reflections. I has normal bond distances [Pt-Cl = 2.288(5), 2.296(5) .ANG.; Pt-N(pyrimidine) = 2.03(1) .ANG.; Pt-N(ammonia) = 2.04(1) .ANG.] and angles, and the pyrimidine ring is at an angle of 64.degree. to the ligand square plane. I is formed from cis-[Pt(NH3)2ClL]Cl in aq. soln. at room temp. A mechanism is proposed for its formation, and possible implications with regard to the binding properties of cis-Pt(NH3)2Cl2 are

discussed. II also has normal bond distances [Pt-N(ammonia) = 2.067(10 .ANG.; Pt-N(pyrimidine) = 2.023(8) .ANG.] and angles; the pyrimidine-square-plane dihedral angle is larger (78.degree.).

IT **76068-65-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

RN 76068-65-0 CAPLUS

CN Platinum, (4-amino-1-methyl-2(1H)-pyrimidinone-N3)amminedichloro-, hydrate (2:1), (SP-4-1)- (9CI) (CA INDEX NAME)



●1/2 H_2O

L22 ANSWER 47 OF 63 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1981:472299 CAPLUS

DOCUMENT NUMBER: 95:72299

TITLE: Study of the thermal stability of [Pt(NH3)2LCl]Cl complexes

AUTHOR(S): Kukushkin, Yu. N.; Andronov, E. A.; Postnikova, E. S.; Lukicheva, T. M.; Krylova, G. S.

CORPORATE SOURCE: Leningr. Tekhnol. Inst., Leningrad, USSR

SOURCE: Zh. Prikl. Khim. (Leningrad) (1981), 54(2), 239-42
CODEN: ZPKHAB; ISSN: 0044-4618

DOCUMENT TYPE: Journal

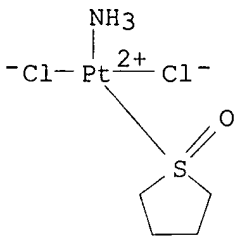
LANGUAGE: Russian

AB cis-[Pt(NH3)2LCl]Cl [L = Et2SO, Pr2SO, tetramethylene sulfoxide, (PhCH2)2SO, thioxane, thiophane] were prepd. by the reaction of cis- or trans-[PtL2Cl2] in CHCl3 or Me2CO with NH3 gas. cis-[Pt(NH3)2LCl]Cl thermally decomp. to [Pt(NH3)LCl2] with loss of NH3; and for L = thiophane and tetramethylene sulfoxide to [Pt2(NH3)4LCl2]Cl2 and for L = Et2SO, Pr2SO, (PhCH2)2SO, and thioxane to [Pt(NH3)3Cl]Cl with the loss of L.

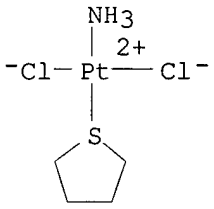
IT **77689-88-4P 77701-60-1P 77716-73-5P**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in thermolysis reaction)

RN 77689-88-4 CAPLUS

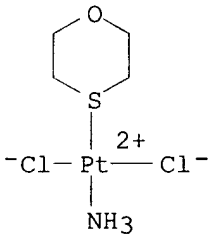
CN Platinum, amminedichloro(tetrahydrothiophene 1-oxide-S1)- (9CI) (CA INDEX NAME)



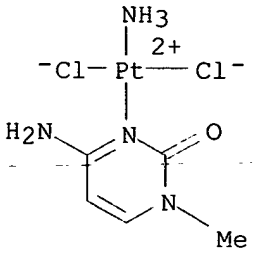
RN 77701-60-1 CAPLUS
CN Platinum, amminedichloro(tetrahydrothiophene)- (9CI) (CA INDEX NAME)



RN 77716-73-5 CAPLUS
CN Platinum, amminedichloro(1,4-oxathiane-S4)- (9CI) (CA INDEX NAME)



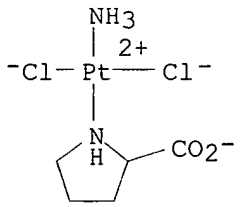
L22 ANSWER 48 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1982:35500 CAPLUS
DOCUMENT NUMBER: 96:35500
TITLE: Tris(nucleobase) complexes derived from cis-diammineplatinum(II) chloride
AUTHOR(S): Lippert, Bernhard
CORPORATE SOURCE: Anorg.-Chem. Inst., Tech. Univ., Garching, D-8046, Fed. Rep. Ger.
SOURCE: Inorg. Chim. Acta (1981), 56(2), L23-L24
CODEN: ICHAA3; ISSN: 0020-1693
DOCUMENT TYPE: Journal
LANGUAGE: English
AB [Pt(NH3)C3](ClO4)2 (C = 1-methylcytosine) was prepd. by sequential treatment of trans-Pt(NH3)CCl2 with AgClO4 and C. Analogously obtained was trans-[Pt(NH3)CG2](ClO4)2 (G = 9-ethylguanine).
IT **80103-36-2**
RL: RCT (Reactant)
(sequential reaction of, with silver perchlorate and 1-methylcytosine)
RN 80103-36-2 CAPLUS
CN Platinum, (4-amino-1-methyl-2(1H)-pyrimidinone-N3)amminedichloro-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 49 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1980:578637 CAPLUS
DOCUMENT NUMBER: 93:178637
TITLE: Study of the circular dichroism of diastereomers of trans-monoamminemonoprolinedichloroplatinum. Crystal structure and absolute configuration of trans-[Pt{L-(RN)ProH}(NH3)Cl2]
AUTHOR(S): Slyudkin, O. P.; Minacheva, L. Kh.; Kerzhentsev, M. A.; Sadikov, G. G.; Antsyshkina, A. S.; Porai-Koshits, M. A.
CORPORATE SOURCE: Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR
SOURCE: Koord. Khim. (1980), 6(7), 1097-103
CODEN: KOKHDC
DOCUMENT TYPE: Journal
LANGUAGE: Russian

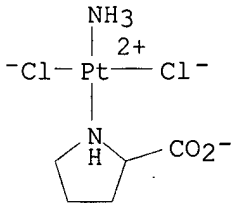
AB trans-[Pt{(RN)ProH}(NH3)Cl2] (I) and trans-[Pt{(SN)ProH}(NH3)Cl2] (ProH = L-proline) were prepd. and characterized by CD, electronic, and IR spectra. I is orthorhombic, space group P21221, with a 6.724(3), b 12.621(4), c 12.641(5) .ANG.; Z = 4, d.(calcd.) = 2.28. The abs. configurations of the asym. N and C atoms are R and S, resp., in I.

IT **75109-78-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and CD of)
RN 75109-78-3 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-N1)-, hydrogen, [SP-4-1-(cis)]-(9CI) (CA INDEX NAME)



IT **75109-77-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure and CD of)
RN 75109-77-2 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-N1)-, hydrogen,

[SP-4-1-(trans)]- (9CI) (CA INDEX NAME)



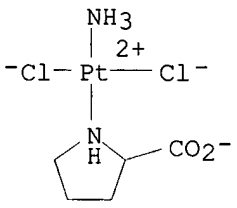
H^+

L22 ANSWER 50 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1974:89026 CAPLUS
DOCUMENT NUMBER: 80:89026
TITLE: Optical activity of mixed platinum(II) proline-glycine complexes
AUTHOR(S): Slyudkin, O. P.; Adrianova, O. N.; Volshtein, L. M.
CORPORATE SOURCE: Inst. Obshch. Neorg. Khim. im. Kurnakova, Moscow, USSR
SOURCE: Zh. Neorg. Khim. (1973), 18(11), 3028-32
CODEN: ZNOKAQ
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The ORD, CD, and absorption spectra of several mixed Pt(II) proline (PrOH)-glycine (GlyH) bis-chelates of the trans configuration, e.g., ([Pt(L-Pro)(Gly)], [Pt(L-Pro)(Gly)(NH3)2], [Pt(L-PrOH)(GlyH)(NH3)2]Cl2, [Pt(L-PrOH)(GlyH)Cl2], and [Pt(L-Pro)(GlyH)Cl]), were studied at 250-600 nm in order to find out, whether the stereochem. relations for the N-atom of the mono- and bidentate L-proline remain the same as those found for the monoproline compds. In these bis-chelates L-proline is coordinated stereospecifically with the formation of S-configuration on the N-atom. Racemization of this configuration proceeds via opening of the Pt-O bond. The [Pt(L-Pro)(Gly).HCl] complex contains a bidentate proline and a monodentate glycine: [Pt(L-Pro)(GlyH)Cl].

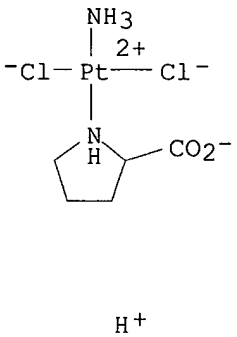
IT **38991-52-5**
RL: PRP (Properties)
(optical activity of)

RN 38991-52-5 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-.kappa.N1)-, hydrogen, (SP-4-1)-(9CI) (CA INDEX NAME)



H^+

L22 ANSWER 51 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1974:33371 CAPLUS
DOCUMENT NUMBER: 80:33371
TITLE: Optical activity of platinum(II) complexes with mono- and bidentate L-proline
AUTHOR(S): Slyudkin, O. P.; Adrianova, O. N.; Chel'stov, P. A.; Volshtein, L. M.
CORPORATE SOURCE: Inst. Obshch. Neorg. Khim., Moscow, USSR
SOURCE: Zh. Neorg. Khim. (1973), 18(10), 2631-5
CODEN: ZNOKAQ
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The absorption, CD, and ORD spectra of [PtL(NH3)-Cl] (HL = L-proline), [Pt(HL)NH3Cl2], K[PtLCl2], and K[Pt-(HL)Cl3], and [PtL(NH3)3]Cl indicate that, in contrast to bidentate HL, monodentate L- is nonstereospecifically coordinated to N. The opening of the Pt-L-proline chelate cycle is accompanied by racemization of an asym. N donor atom.
IT **38991-52-5**
RL: RCT (Reactant)
(stereochem. of, spectra in relation to)
RN 38991-52-5 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-.kappa.N1)-, hydrogen, (SP-4-1)-(9CI) (CA INDEX NAME)

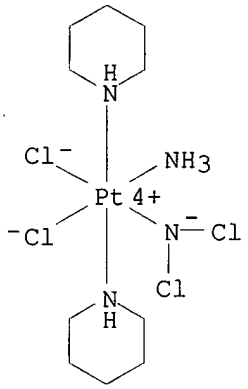


L22 ANSWER 52 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1973:89212 CAPLUS
DOCUMENT NUMBER: 78:89212
TITLE: Stability of platinum(II) complexes with secondary heterocyclic amines
AUTHOR(S): Kukushkin, Yu. N.; Yurinov, V. A.
CORPORATE SOURCE: USSR
SOURCE: Zh. Neorg. Khim. (1973), 18(1), 182-8
CODEN: ZNOKAQ
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The instability consts. are given for a series of Pt(II) and Pt(IV) complexes with heterocyclic amines. Fifteen Pt-piperidine (I) and 4 Pt-morpholine (II) complexes were prepd., the latter being more stable than the piperidine complexes. The exptl. stability consts. were compared with the published results. For Pt(IV), the stability of the type-[PtL4Cl2] complexes increases with L in the order Cl < py < EtNH2 < piperidine .apprxeq. NH3 < MeNH2 and of the type [PtX6] complexes with X in the order Cl < Br < piperidine < CN. The stability of the [PtIIL4]

increases with L in the order Cl < Br < I < py < NH3 < EtNH2 < piperidine < morpholine < MeNH2 < CN < en.

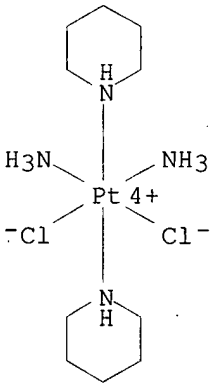
IT **41476-53-3P 41476-54-4P 41518-02-9P 41518-03-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 41476-53-3 CAPLUS
CN Platinum(1+), amminedichlorodichloramidobis(piperidine)-, chloride, (OC-6-14)- (9CI) (CA INDEX NAME)



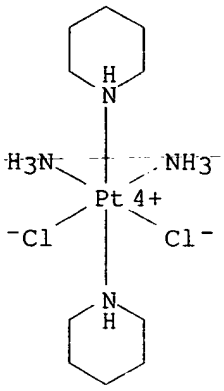
Cl⁻

RN 41476-54-4 CAPLUS
CN Platinum(2+), diamminedichlorobis(piperidine)-, dichloride, (OC-6-13)- (9CI) (CA INDEX NAME)



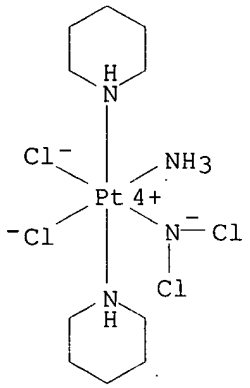
2 Cl⁻

RN 41518-02-9 CAPLUS
CN Platinum(2+), diamminedichlorobis(piperidine)-, dichloride, (OC-6-32)- (9CI) (CA INDEX NAME)



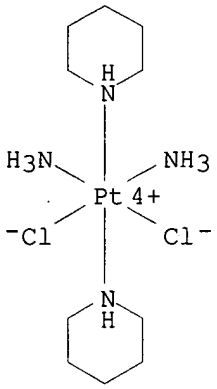
2 Cl^-

RN 41518-03-0 CAPLUS
CN Platinum(1+), amminedichlorodichloramidobis(piperidine)-, chloride (9CI) (CA INDEX NAME)

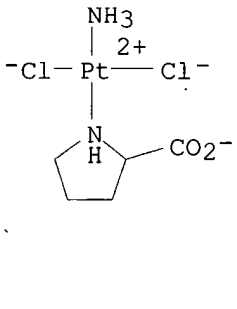


Cl^-

IT **41476-65-7**
RL: PRP (Properties)
(stability of)
RN 41476-65-7 CAPLUS
CN Platinum(2+), diamminedichlorobis(piperidine)-, (OC-6-32)- (9CI) (CA INDEX NAME)

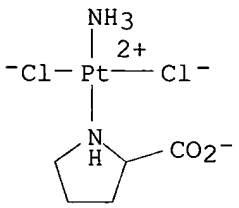


L22 ANSWER 53 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1973:520052 CAPLUS
DOCUMENT NUMBER: 79:120052
TITLE: Infrared spectra and structure of L-proline-platinum(II) complexes
AUTHOR(S): Slyudkin, O. P.; Selitskaya, N. D.; Volshtein, L. M.
CORPORATE SOURCE: Novosib. Gos. Univ., Novosibirsk, USSR
SOURCE: Izv. Sib. Otd. Akad. Nauk SSSR, Ser. Khim. Nauk (1973), (4), 44-8
CODEN: IZSKAB
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The ir spectra (400-4000 cm-1) were studied of 15 monoproline, diproline, and proline-glycine Pt(II) complexes. The empirical assignment of some characteristic bands is given. The data confirm the structure of the complexes predicted by V. and S. (1972) from chem. studies.
IT **38991-52-5**
RL: PRP (Properties)
(ir spectrum and structure of)
RN 38991-52-5 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-.kappa.N1)-, hydrogen, (SP-4-1)-. (9CI) (CA INDEX NAME)



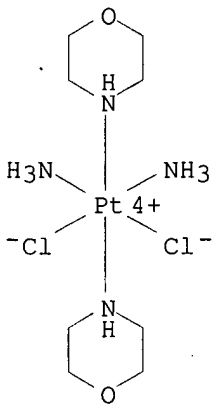
L22 ANSWER 54 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1972:559606 CAPLUS
DOCUMENT NUMBER: 77:159606
TITLE: Platinum(II) diproline compounds

AUTHOR(S): Volshtein, L. M.; Slyudkin, O. P.
CORPORATE SOURCE: Novosib. Gos. Univ., Novosibirsk, USSR
SOURCE: Zh. Neorg. Khim. (1972), 17(8), 2239-44
CODEN: ZNOKAQ
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The reaction of K[PtLCl2] with excess HL (HL = L-proline) gave trans-[PtL(LH)Cl] and cis-PtL2. The prolonged treatment of trans-[PtL(LH)Cl] with warm KOH gave trans-PtL2. PtL2(thio)2 (thio = thiourea), PtL2(NH3)2, and Pt(LH)NH3Cl2 were prepd. also.
IT **38991-52-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 38991-52-5 CAPLUS
CN Platinate(1-), amminedichloro(L-prolinato-.kappa.N1)-, hydrogen, (SP-4-1)-(9CI) (CA INDEX NAME)



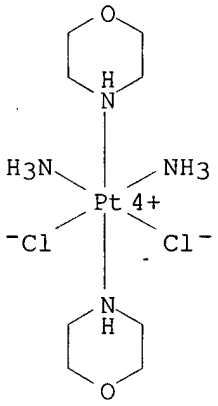
H^+

L22 ANSWER 55 OF 63 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1970:38390 CAPLUS
DOCUMENT NUMBER: 72:38390
TITLE: Complexes of platinum with morpholine
AUTHOR(S): Kukushkin, Yu. N.; Yurinov, V. A.
CORPORATE SOURCE: USSR
SOURCE: Zh. Neorg. Khim. (1969), 14(11), 3049-52
CODEN: ZNOKAQ
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The following new complexes of morpholine (L) with Pt(II) or Pt(IV) were prepd.: cis-[PtL2Cl2], cis-[PtL2Cl4], cis-[PtL2Cl3OH], trans- and cis-[Pt(NH3)2L2]Cl2, trans- and cis-[Pt(NH3)2L2Cl2]C l2, trans- and cis-[PtNCl2(NH3)L2-Cl2]Cl. L is easily replaced by H2O, more so in Pt(IV) complexes. Instability consts. of trans- and cis-[Pt(NH3)2L2]Cl2 are 1.2 .times. 10-10 and 1.1 .times. 10-13, resp.
IT **25145-68-0P 25145-69-1P 25145-70-4P**
25246-34-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 25145-68-0 CAPLUS
CN Platinum(2+), diamminedichlorobis(morpholine)-, dichloride, trans- (8CI) (CA INDEX NAME)



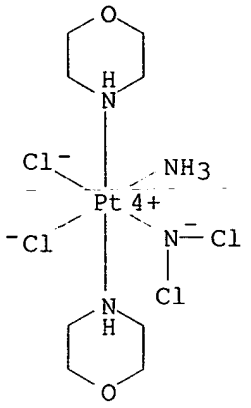
2 Cl^-

RN 25145-69-1 CAPLUS
CN Platinum(2+), diamminedichlorobis(morpholine)-, dichloride, cis- (8CI) (CA INDEX NAME)



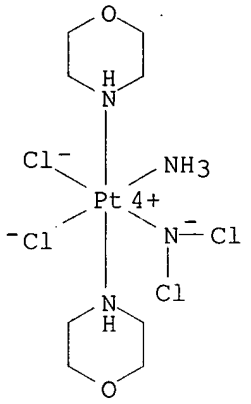
2 Cl^-

RN 25145-70-4 CAPLUS
CN Platinum(1+), amminedichloro(dichloramido)bis(morpholine)-, chloride, trans- (8CI) (CA INDEX NAME)



● Cl⁻

RN 25246-34-8 CAPLUS
CN Platinum(1+), amminedichloro(dichloramido)bis(morpholine)-, chloride, cis- (8CI) (CA INDEX NAME)



Cl⁻

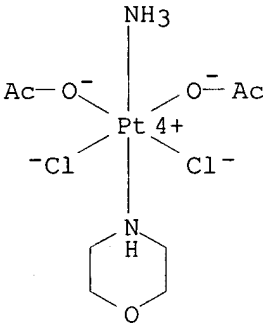
L22 ANSWER 56 OF 63 USPATFULL
ACCESSION NUMBER: 93:76537 USPATFULL
TITLE: Pt(IV) complexes as anti-tumor agents
INVENTOR(S): Abrams, Michael J., Glenmore, PA, United States
Giandomenico, Christen M., Exton, PA, United States
Murrer, Barry A., Reading, United Kingdom
Vollano, Jean F., Exton, PA, United States
PATENT ASSIGNEE(S): Johnson Matthey, Inc., Valley Forge, PA, United States (U.S. corporation)

NUMBER	KIND	DATE

Searched by Barb O'Bryen, STIC 308-4291

PATENT INFORMATION: US 5244919 19930914
APPLICATION INFO.: US 1991-723971 19910701 (7)
RELATED APPLN. INFO.: Division of Ser. No. US 1990-602931, filed on 25 Oct 1990, now patented, Pat. No. US 5072011 which is a continuation-in-part of Ser. No. US 1988-151674, filed on 2 Feb 1988, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lewis, Michael
ASSISTANT EXAMINER: Hendricks, Stuart L.
LEGAL REPRESENTATIVE: Cushman, Darby & Cushman
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
LINE COUNT: 841
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A Pt(IV) complex of the formula ##STR1## wherein A and A' are NH.sub.3 or an amino group; R and R.sup.1 are hydrogen, alkyl, alkenyl, aryl, aralkyl, alkylamino or alkoxy or functionalized derivatives thereof; and X is halogen or alkyl mono- or dicarboxylate. The complexes have high antitumor activity, particularly when administered orally.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **129598-45-4P**
(prepn. of, as antitumor agent)
RN 129598-45-4 USPATFULL
CN Platinum, bis(acetato-O)amminedichloro(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



L22 ANSWER 57 OF 63 USPATFULL
ACCESSION NUMBER: 93:20740 USPATFULL
TITLE: Trans-Pt (IV) compounds
INVENTOR(S): Barnard, Christopher F. J., Reading, United Kingdom
PATENT ASSIGNEE(S): Johnson Matthey Public Limited Company, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5194645		19930316
APPLICATION INFO.:	US 1992-848681		19920309 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1991-5037	19910309

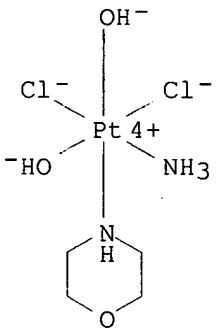
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted

PRIMARY EXAMINER: Prescott, Arthur C.
LEGAL REPRESENTATIVE: Cushman, Darby & Cushman
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 741
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Trans-Pt(IV) compounds of general formula

[PtX.sub.2 Y.sub.2 L.sup.1 L.sup.2)]

where X is halogen, Y is halogen, hydroxyl or carboxylate and each L is an amine ligand, providing L.sup.1 and L.sup.2 are not both NH.sub.3 are surprisingly active against cancer cells, in contrast to expectations that all trans-Pt compounds are inactive.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **146924-17-6P**
(prepn. of, as antitumor pharmaceutical)
RN 146924-17-6 USPATFULL
CN Platinum, amminedichlorodihydroxy(morpholine-N4)-, (OC-6-12)- (9CI) (CA INDEX NAME)



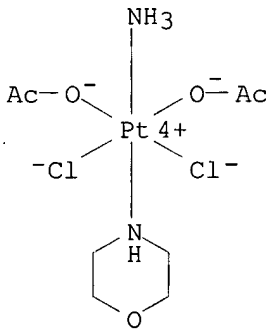
L22 ANSWER 58 OF 63 USPATFULL
ACCESSION NUMBER: 91:100525 USPATFULL
TITLE: Pt(IV) complexes
INVENTOR(S): Abrams, Michael J., Glenmore, PA, United States
Giandomenico, Christen, Exton, PA, United States
Murrer, Barry A., Reading, Great Britain
Vollano, Jean F., Exton, PA, United States
PATENT ASSIGNEE(S): Johnson Matthey, Inc., Valley Forge, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5072011		19911210
APPLICATION INFO.:	US 1990-602931		19901025 (7)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1989-296776, filed on 13 Jan 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-151674, filed on 2 Feb 1988, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Straub, Gary P.
ASSISTANT EXAMINER: Hendrickson, Stuart L.
LEGAL REPRESENTATIVE: Cushman, Darby & Cushman

NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 860
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A Pt(IV) complex of the formula ##STR1## wherein A and A' are NH.sub.3 or an amino group; R and R' are hydrogen, alkyl, alkenyl, aryl, aralkyl, alkylamino or alkoxy or functionalized derivatives thereof; and X is halogen or alkyl mono- or dicarboxylate. The complexes have high antitumor activity, particularly when administered orally.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **129598-45-4P**
(prepn. of, as antitumor agent)
RN 129598-45-4 USPATFULL
CN Platinum, bis(acetato-O)amminedichloro(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



L22 ANSWER 59 OF 63 USPATFULL
ACCESSION NUMBER: 91:50465 USPATFULL
TITLE: Platinum complexes with one radiosensitizing ligand
INVENTOR(S): Skov, Kirsten A., Vancouver, Canada
Farrell, Nicholas P., Winooski, VT, United States
Chaplin, David J., Richmond, Canada
PATENT ASSIGNEE(S): The British Columbia Cancer Foundation, Vancouver, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5026694		19910625
APPLICATION INFO.:	US 1989-374356		19890630 (7)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1987-37498, filed on 13 Apr 1987, now patented, Pat. No. US 4921963
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Friedman, Stanley J.
ASSISTANT EXAMINER: Hollinden, Gary E.
LEGAL REPRESENTATIVE: Irell & Manella
NUMBER OF CLAIMS: 30
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1001
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods to inhibit tumor growth and to radiosensitize hypoxic cells and pharmaceutical compositions therefor are disclosed. These methods and compositions use compounds of the formula

PtX.sub.n (NR.sub.2 H) (L) (1)

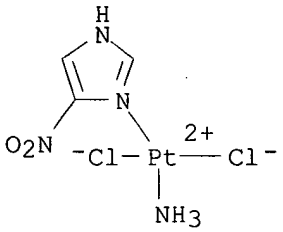
wherein n is 1 or 2, and

wherein when n is 2, X is a monovalent biologically acceptable anion, and when n is 1, X is a divalent biologically acceptable anion;

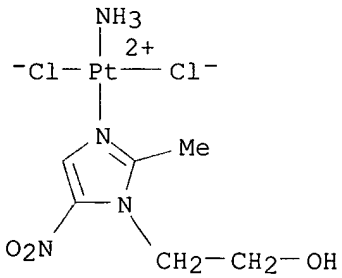
each R is independently H or alkyl, or both Rs together are a piperidino or morpholino residue; and

L is a radiosensitizing ligand selected from a mononitro-substituted imidazole, a mononitro-substituted pyrazole, a mononitro-substituted thiazole and a mononitro-substituted isothiazole.

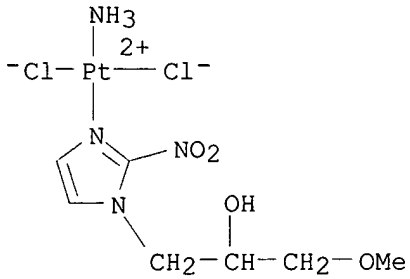
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **110302-83-5 110321-22-7 112198-62-6**
114532-23-9 121281-51-4 121350-02-5
121350-03-6 121350-04-7 121350-05-8
121350-06-9 121350-07-0 121668-91-5
121668-92-6 121703-32-0 121703-33-1
(as radiosensitizer, for neoplasm treatment)
RN 110302-83-5 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



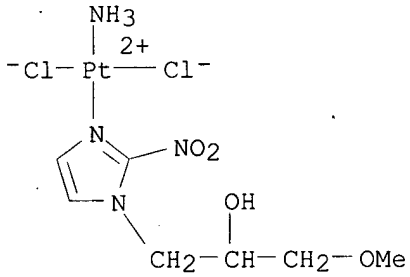
RN 110321-22-7 USPATFULL
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



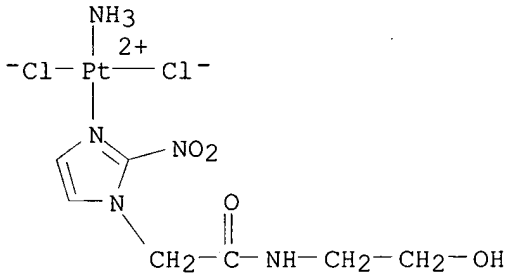
RN 112198-62-6 USPATFULL
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



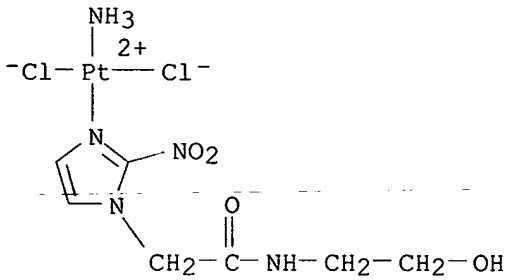
RN 114532-23-9 USPATFULL
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



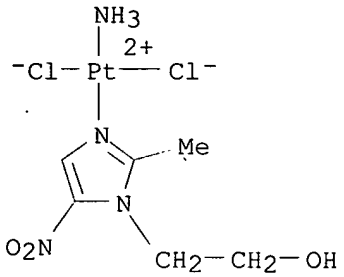
RN 121281-51-4 USPATFULL
CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



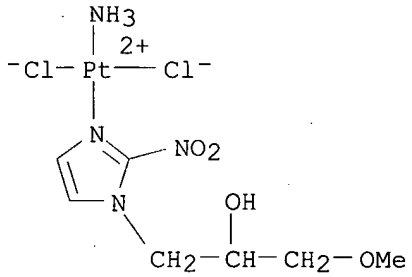
RN 121350-02-5 USPATFULL
CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]- (9CI) (CA INDEX NAME)



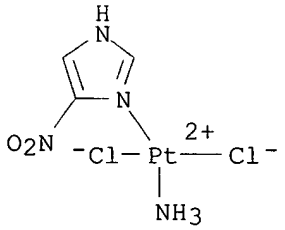
RN 121350-03-6 USPATFULL
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-
(9CI) (CA INDEX NAME)



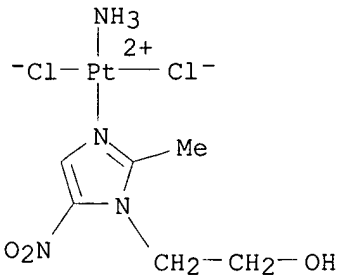
RN 121350-04-7 USPATFULL
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-
ethanol-N3]- (9CI) (CA INDEX NAME)



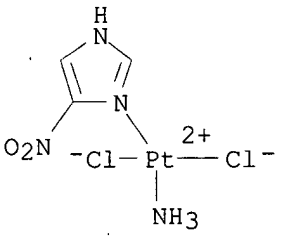
RN 121350-05-8 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)- (9CI) (CA INDEX NAME)



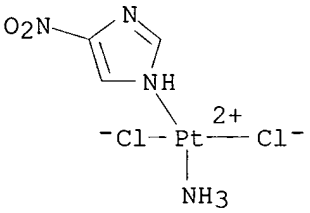
RN 121350-06-9 USPATFULL
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



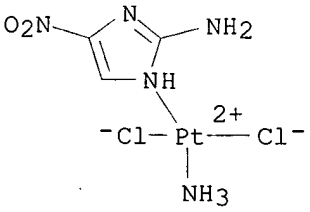
RN 121350-07-0 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



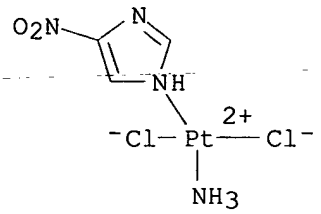
RN 121668-91-5 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)- (9CI) (CA INDEX NAME)



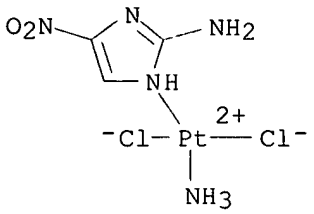
RN 121668-92-6 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazol-2-amine-N1)- (9CI) (CA INDEX NAME)



RN 121703-32-0 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 121703-33-1 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazol-2-amine-N1)-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 60 OF 63 USPATFULL

ACCESSION NUMBER:	90:71847 USPATFULL
TITLE:	Monoclonal antibody - platinum co-ordination compound complex
INVENTOR(S):	Heffernan, James G., Pangbourne, England Hydes, Paul C., Reading, England Picker, Donald H., Narbert, PA, United States
PATENT ASSIGNEE(S):	Johnson Matthey PLC, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4956454		19900911
APPLICATION INFO.:	US 1988-184140		19880421 (7)
RELATED APPLN. INFO.:	Division of Ser. No. US 1986-873130, filed on 11 Jun 1986, now patented, Pat. No. US 4760155 which is a continuation-in-part of Ser. No. US 1984-625251, filed on 27 Jun 1984, now abandoned		

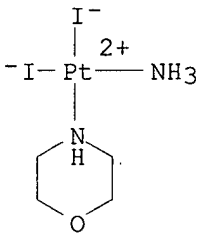
	NUMBER	DATE
PRIORITY INFORMATION:	EP 1985-304131	19850611

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Draper, Garnette
LEGAL REPRESENTATIVE:	Cushman, Darby & Cushman
NUMBER OF CLAIMS:	4
EXEMPLARY CLAIM:	1
LINE COUNT:	455

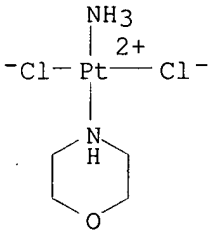
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Platinum co-ordination compounds comprising at least one amine ligand and a functional group remotely bonded to the amine ligand, which functional group may be linkable to a monoclonal antibody to provide a moiety which stabilizes the antibody against in vivo hydrolysis.

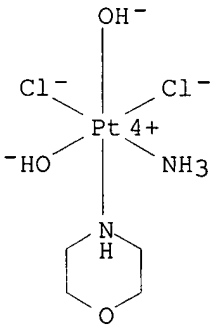
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **103436-53-9P**
(prepn. and reaction of, with silver nitrate and hydrochloric acid)
RN 103436-53-9 USPATFULL
CN Platinum, amminediiodo(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



IT **103436-43-7P 103436-44-8P**
(prepn. of, for linking to monoclonal antibodies, for drug delivery)
RN 103436-43-7 USPATFULL
CN Platinum, amminedichloro(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 103436-44-8 USPATFULL
CN Platinum, amminedichlorodihydroxy(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



L22 ANSWER 61 OF 63 USPATFULL
ACCESSION NUMBER: 90:34216 USPATFULL

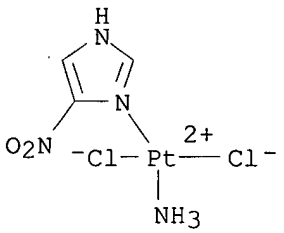
TITLE: Platinum complexes with one radiosensitizing ligand
INVENTOR(S): Skov, Kirsten A., Vancouver, Canada
Farrell, Nicholas P., Winooski, VT, United States
Chaplin, David J., Richmond, Canada
PATENT ASSIGNEE(S): British Columbia Cancer Foundation, Vancouver, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4921963		19900501
APPLICATION INFO.:	US 1987-37498		19870413 (7)

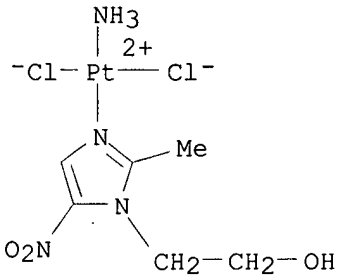
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lieberman, Paul
ASSISTANT EXAMINER: McNally, John F.
LEGAL REPRESENTATIVE: Irell & Manella
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 807
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Complexes of platinum II containing a single radiosensitizer ligand and an amino or ammine substituent shows superior binding to DNA and are useful in chemotherapy and sensitization of hypoxic tumors to radiation. The chemotherapeutic value of these compounds is enhanced by administration of vasoactive agents.

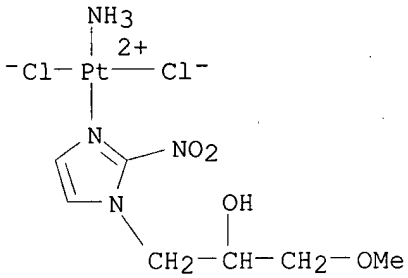
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **110302-83-5 110321-22-7 112198-62-6**
114532-23-9 121281-51-4 121350-02-5
121350-03-6 121350-04-7 121350-05-8
121350-06-9 121350-07-0 121668-91-5
121668-92-6 121703-32-0 121703-33-1
(as radiosensitizer, for neoplasm treatment)
RN 110302-83-5 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



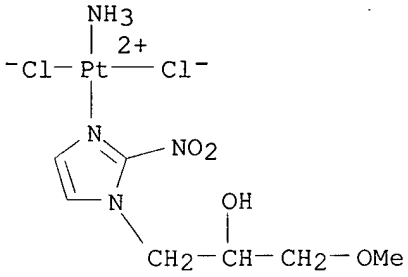
RN 110321-22-7 USPATFULL
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-3)- (9CI) (CA INDEX NAME)



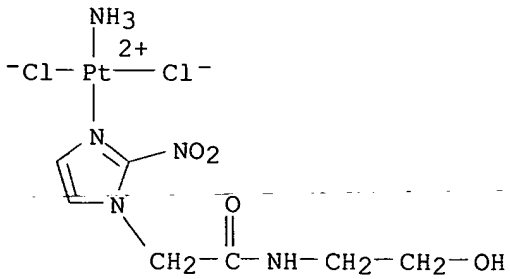
RN 112198-62-6 USPATFULL
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-3)- (9CI) (CA INDEX NAME)



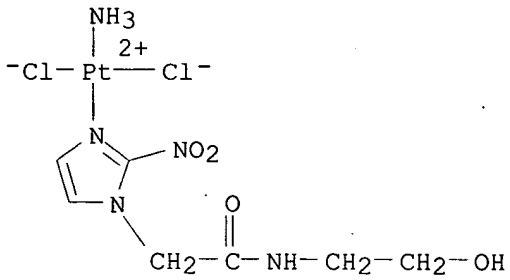
RN 114532-23-9 USPATFULL
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



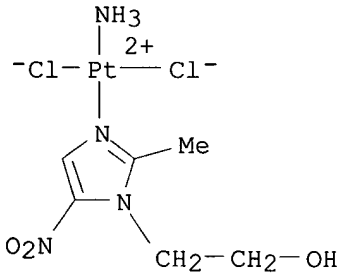
RN 121281-51-4 USPATFULL
CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]-, (SP-4-1)- (9CI) (CA INDEX NAME)



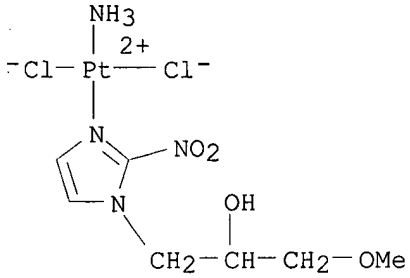
RN 121350-02-5 USPATFULL
CN Platinum, amminedichloro[N-(2-hydroxyethyl)-2-nitro-1H-imidazole-1-acetamide-N3]- (9CI) (CA INDEX NAME)



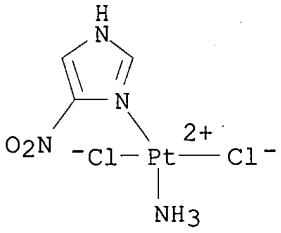
RN 121350-03-6 USPATFULL
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)- (9CI) (CA INDEX NAME)



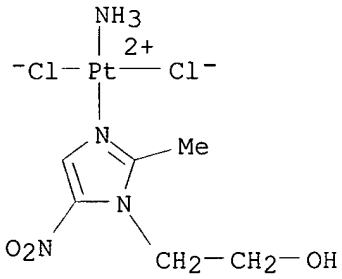
RN 121350-04-7 USPATFULL
CN Platinum, amminedichloro[.alpha.-(methoxymethyl)-2-nitro-1H-imidazole-1-ethanol-N3]- (9CI) (CA INDEX NAME)



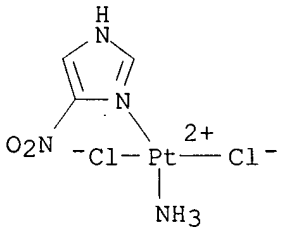
RN 121350-05-8 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)- (9CI) (CA INDEX NAME)



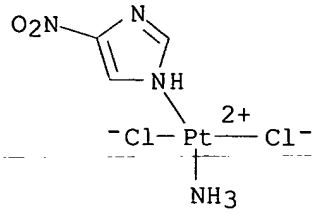
RN 121350-06-9 USPATFULL
CN Platinum, amminedichloro(2-methyl-5-nitro-1H-imidazole-1-ethanol-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



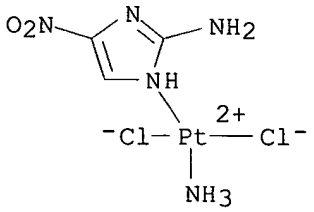
RN 121350-07-0 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N3)-, (SP-4-1)- (9CI) (CA INDEX NAME)



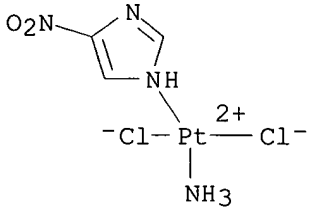
RN 121668-91-5 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)- (9CI) (CA INDEX NAME)



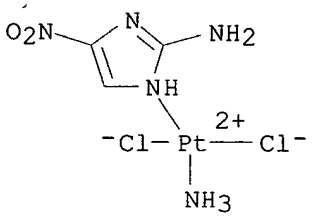
RN 121668-92-6 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazol-2-amine-N1)- (9CI) (CA INDEX NAME)



RN 121703-32-0 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazole-N1)-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 121703-33-1 USPATFULL
CN Platinum, amminedichloro(4-nitro-1H-imidazol-2-amine-N1)-, (SP-4-1)- (9CI) (CA INDEX NAME)



L22 ANSWER 62 OF 63 USPATFULL
ACCESSION NUMBER: 90:13532 USPATFULL
TITLE: Ammine-alicyclic amine-platinum complexes and antitumor

agents

INVENTOR(S): Totani, Tetsushi, Hyogo, Japan
Aono, Katsutoshi, Nara, Japan
Adachi, Yasuko, Osaka, Japan

PATENT ASSIGNEE(S): Shionogi & Co., Ltd., Fukushima, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4902797		19900220	
APPLICATION INFO.:	US 1987-135061		19871218	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1986-303529	19861218

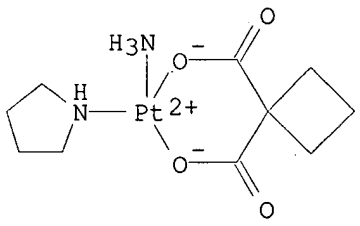
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Berch, Mark L.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1,2
LINE COUNT: 622
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound of the formula (I): ##STR1## (wherein R is C.sub.1 -C.sub.6 alkyl, hydroxy, carboxy, C.sub.1 -C.sub.6 alkoxy, halogen or oxo; m is an integer from 2 to 7; X and Y each is chlorine or nit-rato ligand, or taken together form --OCOCH(R.sup.1)O--, OCOCOO--, ##STR2## R.sup.1 is hydrogen, C.sub.1 -C.sub.5 alkyl, hydroxymethyl, halogmethyl or phenyl; R.sup.2 is hydrogen or C.sub.1 -C.sub.5 alkyl; and n is an integer from 2 to 5), being useful as antitumor agents is provided.

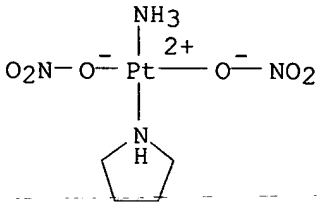
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **116219-17-1P 116219-18-2P 116219-19-3P**
116219-20-6P 116219-21-7P 116219-22-8P
116219-23-9P 116219-24-0P 116219-25-1P
116219-26-2P 116219-27-3P 116219-28-4P
116219-29-5P 116219-30-8P 116219-31-9P
116235-96-2P 116297-79-1P 116297-80-4P
(prepn. of, as antitumor agent)

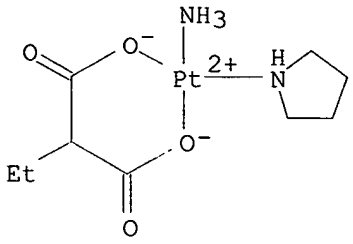
RN 116219-17-1 USPATFULL
CN Platinum, ammine[1,1-cyclobutanedicarboxylato(2-)](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



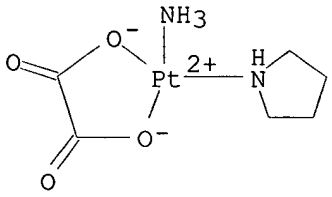
RN 116219-18-2 USPATFULL
CN Platinum, amminebis(nitrato-O)(pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



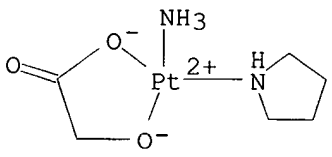
RN 116219-19-3 USPATFULL
CN Platinum, ammine[ethylpropanedioato(1-)-O,O'](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



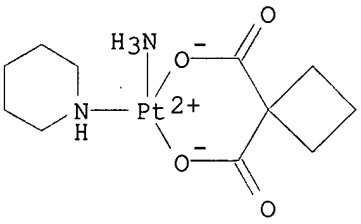
RN 116219-20-6 USPATFULL
CN Platinum, ammine[ethanedioato(2-)-O,O'](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



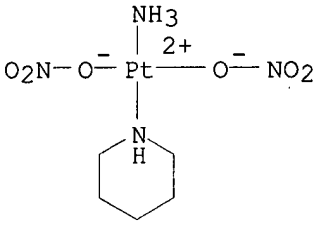
RN 116219-21-7 USPATFULL
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](pyrrolidine)-, (SP-4-4)- (9CI) (CA INDEX NAME)



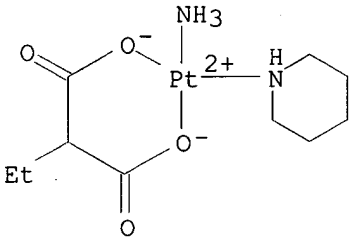
RN 116219-22-8 USPATFULL
CN Platinum, ammine[1,1-cyclobutanedicarboxylato(2-)](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



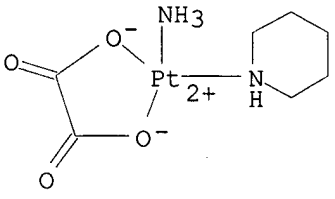
RN 116219-23-9 USPATFULL
CN Platinum, amminebis(nitrato-O)(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



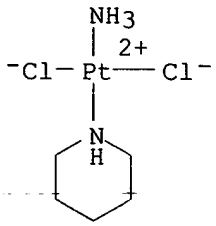
RN 116219-24-0 USPATFULL
CN Platinum, ammine[ethylpropanedioato(2-)-O,O'](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



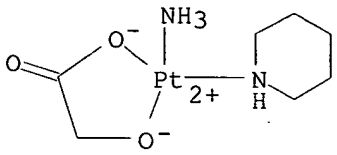
RN 116219-25-1 USPATFULL
CN Platinum, ammine[ethanedioato(2-)-O,O'](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



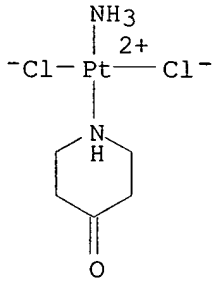
RN 116219-26-2 USPATFULL
CN Platinum, amminedichloro(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



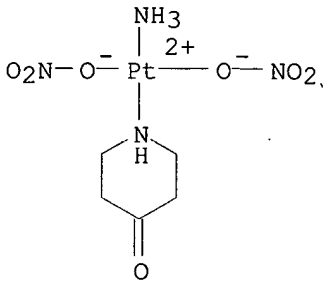
RN 116219-27-3 USPATFULL
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



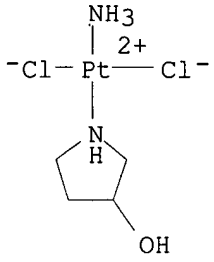
RN 116219-28-4 USPATFULL
CN Platinum, amminedichloro(4-piperidinone-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



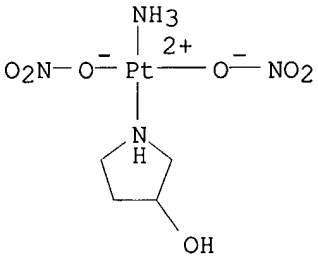
RN 116219-29-5 USPATFULL
CN Platinum, amminebis(nitrato-O)(4-piperidinone-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



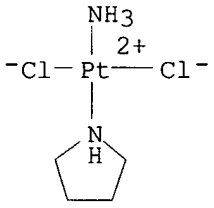
RN 116219-30-8 USPATFULL
CN Platinum, amminedichloro(3-pyrrolidinol-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



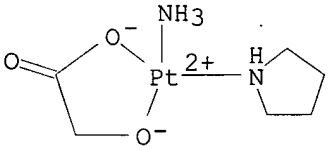
RN 116219-31-9 USPATFULL
CN Platinum, amminebis(nitrato-O)(3-pyrrolidinol-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



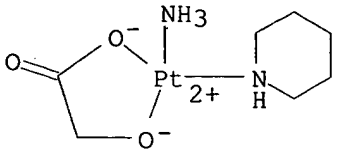
RN 116235-96-2 USPATFULL
CN Platinum, amminedichloro(pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116297-79-1 USPATFULL
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](pyrrolidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)

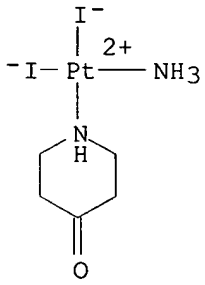


RN 116297-80-4 USPATFULL
CN Platinum, ammine[hydroxyacetato(2-)-O1,O2](piperidine)-, (SP-4-4)- (9CI) (CA INDEX NAME)

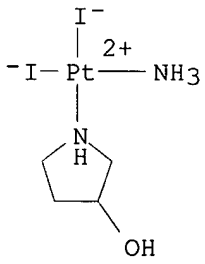


IT **116219-32-0P 116219-33-1P 116235-97-3P**
116235-98-4P
(prepn. of, as antitumor agent intermediate)

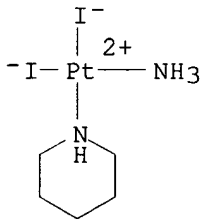
RN 116219-32-0 USPATFULL
CN Platinum, amminediiodo(4-piperidinone-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



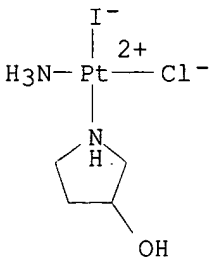
RN 116219-33-1 USPATFULL
CN Platinum, amminediiodo(3-pyrrolidinol-N1)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116235-97-3 USPATFULL
CN Platinum, amminediiodo(piperidine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 116235-98-4 USPATFULL
CN Platinum, amminechloroiodo(3-pyrrolidinol-N1)- (9CI) (CA INDEX NAME)



L22 ANSWER 63 OF 63 USPATFULL

ACCESSION NUMBER:	88:47362 USPATFULL
TITLE:	Platinum co-ordination compounds
INVENTOR(S):	Heffernan, James G., 113 Kennedy Dr., Pangbourne, Berks, RG87LD, England Hydes, Paul C., 13 Woodlands Grove, Caversham, Reading, Berks, RG4 ONB, England Picker, Donald H., 310 Woodside Ave., Narbert, PA, United States 19380

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4760155		19880726
APPLICATION INFO.:	US 1986-873130		19860611 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1984-625251, filed on 27 Jun 1984, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1985-304131	19850611

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Kight, John
ASSISTANT EXAMINER:	Draper, Garnette D.
LEGAL REPRESENTATIVE:	Cushman, Darby & Cushman
NUMBER OF CLAIMS:	5
EXEMPLARY CLAIM:	1
LINE COUNT:	455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

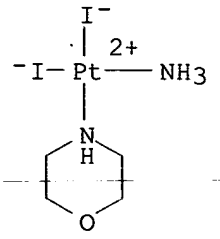
AB Platinum co-ordination compounds comprising at least one amine ligand and a functional group remotely bonded to the amine ligand, which functional group may be linkable to a monoclonal antibody to provide a moiety which stabilizes the antibody against in vivo hydrolysis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

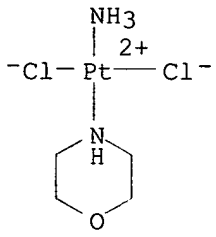
IT **103436-53-9P**
(prepn. and reaction of, with silver nitrate and hydrochloric acid)

RN 103436-53-9 USPATFULL

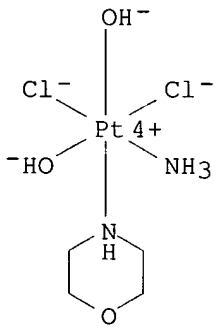
CN Platinum, amminediiodo(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



IT **103436-43-7P 103436-44-8P**
(prepn. of, for linking to monoclonal antibodies, for drug delivery)
RN 103436-43-7 USPATFULL
CN Platinum, amminedichloro(morpholine-N4)-, (SP-4-3)- (9CI) (CA INDEX NAME)



RN 103436-44-8 USPATFULL
CN Platinum, amminedichlorodihydroxy(morpholine-N4)-, (OC-6-43)- (9CI) (CA INDEX NAME)



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This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are

now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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